Surgical observations on the constitutional origin and treatment of local diseases; and on aneurisms / [John Abernethy].

Contributors

Abernethy, John, 1764-1831.

Publication/Creation

London : Printed for Longman, Hurst, Rees, and Orme ..., 1809.

Persistent URL

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SURGICAL OBSERVATIONS

ON THE

CONSTITUTIONAL ORIGIN AND TREATMENT

OF

LOCAL DISEASES;

AND ON

ANEURISMS.

BY JOHN ABERNETHY, F.R.S.

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ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, AND TEACHER OF ANATOMY AND SURGERY.

" *Chirurgo neceſſariam eſſe cognitioneum Phyſices, Chimiæ, Logices,*
" *omnis (fere) ambitus Medicinæ; neque ſolo manus exercitio*
" *veros chirurgos fieri.*" HERM. BOERHAAV. Method.
Stud. Med. locupletata ab Alb. von Haller.

LONDON:

PRINTED FOR LONGMAN, HURST, REES, AND ORME,
PATERNOSTER-ROW.

1809.

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PREFACE.

THE beſt mode of obtaining and extending medical and ſurgical knowledge is, in my opinion, to pay that ſtrict attention to diſeaſes, which qualifies us to note even the ſlighter ſhades of difference that diſtinguiſh them from each other. Such diſcrimination leads us to form ſome regular arrangement of them, which, even if it be not correct, may ultimately enable us to diſcover their natural ſeries and order. This method I have purſued from the beginning of my profeſſional ſtudies. Whenever the opinions on ſubjects of importance, which an attention to caſes had impreſſed upon my mind, differed from thoſe which ſeemed to prevail amongſt other practitioners, I publiſhed the facts, and the inferences which I drew from them, becauſe I thought that the former at leaſt deſerved attention, and that the latter would either be confirmed or confuted by the reſult of general experience.

It is more, however, on account of the caſes, than of the concluſions which they ſuggeſted, that I am deſirous of republiſhing my ſurgical writings. Various advantages reſult even from the publication of opinions; for though we are very liable to error in forming them, yet their promulgation, by exciting inveſtigation, and pointing out the deficiencies of our information, cannot be otherwiſe than uſeful in the promotion of ſcience.

The publication of the opinions which naturally ariſe in the mind of the ſurgeon, from the caſes ſubmitted to his obſervation, poſſeſſes the further utility of rendering a prolix detail of circumſtances unneceſſary. It would be almoſt impoſſible to relate every minute occurrence, that tended to impreſs certain concluſions on the mind of the obſerver; or to relate every trifling particular of treatment, by which the ſurgeon endeavoured to accompliſh his object. Such a dull and tedious narrative, which would weary and diſguſt the reader, may indeed be well ſpared; becauſe the practitioner may, and muſt, repeatedly peruſe the caſe at large in the book

book of nature. The writer merely points out thoſe ſigns by which any diſeaſe may be diſcriminated from others, and identified as one of the particular claſs to which he is deſirous of exciting the public attention.

With regard to the caſes, which I conſider as the valuable part of the book, I may obſerve, that it is not to be expected that the records of them will make ſo ſtrong an impreſſion on the minds of the readers, as the obſervance of them has done on that of the writer; but when the ſame occurrences are met with in practice, then will the impreſſion become more vivid, and knowledge ariſe, as it uſually does, from perſonal experience. If the facts contained in theſe volumes occurred ſo rarely, that others could not be expected to meet with them, their relation would be of little value. They may, however, not improperly be compared to certain ſpecies of plants, by no means uncommon, which are liable to be confounded with others by an inattentive obſerver; but when their diſcriminating characters are once pointed out, they may be ſo readily diſtinguiſhed, collected

lected and examined, as to render a more minute deſcription of them unneceſſary. If diſeaſes could, like other objects which we mean to delineate, be placed in various points of view, and illuminated at pleaſure, ſo as to ſhew diſtinctly their different parts, one accurate repreſentation would ſuffice; but we ſee them obſcurely, and as knowledge increaſes, it ſerves, like light ſhining from different places, to illuminate the various parts of the objects of our examination.

For, as I have expreſſed it in the firſt edition of theſe writings, "in proportion as we advance in knowledge, we are led to remark many circumſtances in the progreſs of a diſorder which had before paſſed without notice; but which, if known and duly attended to, would clearly point out the nature of the complaint. Hence the records of former caſes are of much leſs value; as the ſymptoms about which we are now anxious to enquire, have in them been entirely overlooked." It, therefore, becomes neceſſary that each writer ſhould ſtate thoſe circumſtances to which he has been particularly attentive;

tentive; nor need he further delineate the caſe than by a general outline, ſo as to render it intelligible.

The relation of caſes may be compared to the repreſentations which an artiſt gives of natural objects, and which are valuable only in as much as they are correct or vivid delineations of reality. Such portraits, ſketched by a perſon of dull perception, or by one whoſe optics are perverted by prejudice and theory, are either valueleſs or deceptive; and hence, perhaps, has ariſen that objection to books of caſes which I find to be very prevalent. In the imperfect ſketches which I have laid before the public, my chief object has been to touch up and bring into view ſome parts of the ſubjects which have not been ſo clearly ſeen or ſtrongly delineated by former draftſmen.

When books of this kind are publiſhed, mutual forbearance is requiſite on the part both of the writer and the reader. The former ſhould not expect his work to be approved of, till the latter has examined whether his repreſentation of diſeaſes be correct, and his con-

concluſions legitimately drawn from the facts which he has obſerved and collected. Neither ſhould the reader condemn the work till he has examined the ſubject, and is in conſequence able to point out the errors of the premiſes or concluſions. The author's view of a ſubject may indeed be correctly formed from the facts which he himſelf has witneſſed; but it may differ from that which more extenſive experience would have ſuggeſted. For this difference no blame can properly be attached to him; he relates what has fallen under his own obſervation, and invites others to attend to the ſame facts.

I have been induced thus to offer my ſentiments reſpecting the deſign, mode, and probable advantages of recording caſes, not with a view of vindicating the plan which I have purſued, for that indeed cannot be neceſſary, ſince it is the ſame that has been followed by the beſt authors on ſurgery. My object, by theſe remarks, has been to induce others to reflect how they may moſt effectually promote medical knowledge. No one can have thoroughly ſtudied his pro-

feſſion without perceiving how ſuſceptible it is of improvement, without diſcerning how inadequate the efforts of an individual muſt be towards the accompliſhment of this purpoſe, and conſequently without feeling an earneſt wiſh to engage general co-operation in this deſirable object.

In republiſhing my former writings, I have left out all that part which relates to phyſiology. The ſurgical facts contained in them, will now be found incorporated with my later publications, under the ſame general head of Surgical Obſervations. I have alſo made thoſe alterations and enlargements which a greater ſhare of experience has dictated. The ſubjects have likewiſe been tranſpoſed. I have put at the beginning of the book thoſe caſes which ſhew how much local diſeaſes depend upon the general ſtate of the patient's health, becauſe I ſhall have frequent occaſion to refer to this ſubject in the ſucceeding parts of the work.

I feel much gratified in finding, that, though a larger portion of experience has enabled

enabled me to add ſome new and ſtriking facts to this edition, it has not ſhewn me any thing that I ought to retract or materially alter. This, indeed, muſt be the caſe in a book containing only facts, and opinions not incautiouſly deduced from them. Several of the papers contained in this volume met with very general and ſtrong objection, which I conſidered as the greateſt compliment which could be paid to them. For if the views which I had taken of various practical ſubjects were different from thoſe of others, and were ultimately found to be correct, the greater was the neceſſity for their publication.

SURGICAL

SURGICAL OBSERVATIONS.

ON THE CONSTITUTIONAL ORIGIN, AND TREATMENT OF LOCAL DISEASES.

AN evil ſeems to me to have ariſen from the artificial diviſion of the healing art into the medical and ſurgical departments. This diviſion has cauſed the attention of the phyſician and the ſurgeon to be too excluſively directed to thoſe diſeaſes, which cuſtom has arbitrarily allotted to their care. The effects of local diſorders upon the conſtitution have, in conſequence, been too little attended to; and indeed I know of no book, to which I can refer a ſurgical ſtudent for a ſatisfactory account of thoſe febrile and nervous affections which local diſeaſe produces, except that of Mr. Hunter*. The reciprocal operation of conſtitutional diſorders upon local diſeaſes has obtained

* Treatiſe on the Blood, Inflammation, &c.

ſtill leſs attention. To inveſtigate more particularly ſome parts of theſe ſubjects, and to ſubmit them to public notice, are the propoſed objects of the preſent paper.

No part of the animal body can in general be very conſiderably diſordered, without occaſioning a correſpondent derangement in other parts of the ſyſtem. Such diſorder has been conſidered by Mr. Hunter as the reſult of univerſal ſympathy. This conſent of the whole conſtitution with its parts manifeſts itſelf, in particular inſtances, by a greater diſturbance of the functions of ſome organs than of thoſe of others; and from this circumſtance diſeaſes have derived the appellations, by which they are commonly diſtinguiſhed. If the actions of the ſanguiferous ſyſtem be principally diſturbed, and the temperature of the body ſubject to unuſual variations, the diſeaſe is termed fever: if the nervous ſyſtem be chiefly affected, a ſtate of vigilance or of delirium may be produced: convulſions and tetanus take place, when the functions of the muſcular ſyſtem are more particularly deranged. Though the

the diſorder of particular organs thus give a character and denomination to the diſeaſe, it is ſufficiently evident, in the inſtances adduced, that the whole conſtitution is diſturbed; while certain parts are chiefly affected, perhaps from unknown circumſtances relative to the nervous ſyſtem, or from a prediſpoſition to diſorder exiſting in the affected parts. It ſeems to be aſcertained, that perſons of particular conſtitutions are prediſpoſed to thoſe febrile actions of the ſanguiferous ſyſtem, which conſtitute the inflammatory fever; that there is a propenſity to convulſions in children; and to tetanus in the inhabitants of warm climates.

It may be a fit ſubject for enquiry, whether it be poſſible for particular organs to become affected otherwiſe, than through the medium of the nervous ſyſtem in general. Though ſome inſtances of ſympathy are ſtrange, and perhaps inexplicable, there are ſtrong reaſons for believing that the inflammatory fever, the ſtate of vigilance and delirium, convulſions and tetanus, which ariſe

in conſequence of injuries of the limbs, are produced by irritation imparted to the brain, which, by a kind of reflected operation, occaſions a greater diſorder of ſome of the organs of the body than of others, and thus gives a character and denomination to the diſeaſe *.

* Mr. Hunter, who, with that patience and induſtry for which he was ſo remarkable, collected and examined all the facts which he had obſerved relative to the ſubject of ſympathy; has divided it into continuous, contiguous and remote. It is the remote ſympathies, according to his diviſion, of which I am now ſpeaking.

The obſervations of Dr. Darwin on ocular ſpectra, and indeed the conſideration of the nervous functions in general render it highly probable that ſenſation is not produced merely by impulſes made on the nerves, but by means of actions excited by ſuch impulſes, which actions are continued to the ſenſorium. Nervous actions, then, may take place without the uſually exciting cauſes; ſuch actions may be continued through the medium of the reticular communications of nerves, and thus phyſiologically we may explain the continuous and contiguous ſympathies. Actions alſo productive of ſympathetic ſenſations may be ſuppoſed to take place through the media of ganglia or plexuſes. In remote ſympathies, however, we muſt ſuppoſe the actions which originate in an injured or diſeaſed part of the body to be continued to the ſenſorium, and there to excite the actions of other nerves, &c.

That

That the ſtomach and bowels are diſordered by injuries and diſeaſes of parts of the body, has been remarked by various perſons; but the ſubject has never been extenſively ſurveyed, nor viewed with that accuracy of obſervation, which its high importance merits. It has been obſerved that ſprains of tendinous or ligamentous parts produce ſudden ſickneſs; and Mr. Hunter has attributed that ſhivering which is conſequent to accidents, and attendant on ſome diſeaſes, to the ſtate of the ſtomach. It is known that, in ſome local injuries from accident or operations, the ſtomach has appeared to be the part principally affected. But remarks on the affections thus induced in the digeſtive organs have been made only in a curſory manner; and it is my intention to examine the ſubject more particularly. It alſo appears to me that the connexion of local diſeaſes with the ſtate of the conſtitution in general is either not ſufficiently underſtood, or not duly regarded by the generality of practitioners; and I alſo mean to claim their particular attention to this ſubject. I ſhall in the firſt place ſelect a caſe

to ſhew how the ſtomach and bowels, or, to ſpeak yet more extenſively, the digeſtive organs may be affected from local diſorder.

Sudden and violent local Irritation will ſometimes produce an equally ſudden and vehement Diſorder of the digeſtive Organs.

CASE I.

A HEALTHY gentleman, about twenty-five years of age, was induced to ſubmit to an operation for the return of an adherent omental hernia, rather in order to remove the inconvenience and apprehenſion which the diſorder occaſioned, than from any urgent neceſſity; for any increaſed exertion in walking or riding produced the deſcent of a portion of inteſtine behind the thickened omentum, and obliged him to ſtop, and replace it: and he frequently could not accompliſh the reduction without conſiderable difficulty. The application of truſſes had been quite ineffectual in obviating theſe alarming inconveniencies.

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The patient's diet on the day preceding the operation was ſcanty, and conſiſted of fluid ſubſtances. He took on the morning of the operation ſome Epſom ſalts and manna, which purged him twice and ſeemed to have emptied his bowels. A portion of the omentum was cut off, and the remainder was returned, after two veſſels had been tied. The operation was followed by general diſorder of the conſtitution, manifeſted by a full and ſtrong pulſe, furred tongue, great anxiety, reſtleſſneſs, and total want of ſleep. The ſtomach was particularly affected, being diſtended, uneaſy on compreſſion, and rejecting every thing that was ſwallowed. He was bled largely in the evening, and took ſaline medicines, but could not be prevailed on to ſwallow any thing elſe, except ſome toaſt and water. The ſickneſs had in ſome degree abated on the next day. A ſolution of magneſia vitriolata in mint water was preſcribed in ſmall occaſional doſes, in order to relieve the diſorder and diſtenſion of the ſtomach, by procuring ſome diſcharge from

the bowels *. In the courſe of the day he took an ounce of the ſalts, which was not rejected by the ſtomach, yet he could ſcarcely be prevailed upon to take any thing elſe. The tongue was ſtill covered by a thick yellow fur; the ſkin was hot and dry, and the pulſe frequent. As there was no particular tenderneſs about the hypogaſtric region, he was not again bled. The ſecond night paſſed without any ſleep. As the ſalts had produced

* It is moſt probably the diſorder of the brain which affects the ſtomach; but the re-action of the latter affection is liable to increaſe and maintain the former, by which it had itſelf been produced. The effects that reſult from the ſympathy of the whole conſtitution with local diſorder vary greatly both in nature and degree. Sometimes the brain is the part chiefly affected; on theſe occaſions the nervous energy appears to be much impaired; and in ſome inſtances of this deſcription, the patient gradually ſinks, little fever or reaction of the conſtitution being obſerved; in other inſtances, however, there is a low delirium, with a ſlight degree of febrile action; and in others again, the delirium is more violent, and is accompanied with a proportional increaſe of fever, ſubſultus of the muſcles, and convulſions. Sometimes other parts of the body or particular organs ſeem to be principally affected; indeed the variety of effects produced under the circumſtances alluded to is ſuch as to baffle deſcription.

no effect, the ſame medicine was ordered in an infuſion of ſenna, with the addition of ſome of the tincture, which, by being given in very ſmall doſes, was retained. When, however, it ſeemed likely that no effect would reſult from this medicine, a grain of calomel was given at night, and repeated on the following morning. Still the loathing of food continued. The third night paſſed, like the former ones, without ſleep, and in great anxiety. On the next morning, two pills, containing five grains of the pil. colocynth. and the ſame quantity of the pil. aloet. cum myrrhâ, were given every fourth hour. Theſe procured no ſtool, nor produced any ſenſation which inclined the patient to believe that they would operate. Again he paſſed a ſleepleſs night; but, towards the morning, he felt his bowels apparently filling, to uſe his own expreſſion, and a profuſe diſcharge enſued. A dozen copious, fetid, and black evacuations took place between five and ten o'clock, and he had ſeveral others in the courſe of the day; after which his appetite returned, his tongue became clean, and a ſound and continued ſleep ſucceeded.

That

That the chylopoietic organs were the parts chiefly affected in this caſe, can ſcarcely be queſtioned. The ſickneſs, the tenderneſs of the parts in the epigaſtric region, the averſion to food, and the ſtate of the tongue, all indicate that the ſtomach was much diſordered. The inſuſceptibility of the bowels to the action of medicines, which would ordinarily have produced diſcharges from them, and the profuſe evacuations which ſubſequently relieved the patient, prove that theſe viſcera participated in the affection. The black colour of the diſcharges ſhews, I think, that the ſecretion of the bile was not healthy, and that the liver was affected with the other chylopoietic viſcera.

It may be ſuppoſed, that the injury done to the omentum might contribute to produce the diſorder of theſe organs, rather than of others. We do not, however, find that ſuch effects commonly ſucceed to ſimilar operations. The conſequences in the preſent caſe were more ſevere than might have been expected, if it were not known, that an operation performed on a healthy patient is

more apt to produce conſiderable diſorder, than when performed on one whoſe conſtitution has previouſly ſuſtained the irritation of a diſeaſe, for which the operation becomes neceſſary.

It is probable alſo that the reſtleſſneſs and anxiety of the patient were aggravated, if not principally cauſed, by the ſtate of the chylopoietic viſcera; ſince the relief which took place in thoſe parts on the renewal of ſecretions into them, certainly removed the nervous and febrile ſymptoms. That the diſcharges were the effect of ſecretion is proved by the abſence of alimentary matter in the bowels, in conſequence of the action of the purgative adminiſtered on the morning of the operation, and the abſtinence both before and after that period *.

I could

* Two inſtances are recorded in Mr. Pott's Works, of the operation for the reduction of an hernia being performed where no ſtrangulation exiſted. See Pott's Works, Vol. III. pp. 295, 299, edition of 1783.

The operation in the caſe juſt related was undertaken upon the authority of theſe caſes, which were both ſucceſsful. I performed a ſimilar operation on a patient, whoſe life had been twice in imminent hazard from ſtrangulation

I could relate numerous caſes in ſupport of the inferences, which I have drawn from the preceding hiſtory; that local irritation acting on the nervous ſyſtem may affect the digeſtive organs in a very ſerious manner, and thereby create great general diſorder of the ſyſtem, which is afterwards alleviated in proportion to the amendment that enſues in the ſtate of thoſe viſcera. Such conſequences of great local irritation muſt frequently occur to every one; it is therefore unneceſſary to adduce more inſtances to ſupport the opinions here delivered.

With reſpect to the treatment of caſes of this deſcription it may be right to add, that the primary object ſhould be to produce ſecretion from the irritable organs. In the caſe

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gulation in a caſe of adherent epiplocele, in which a truſs did not keep up the hernia, and the operation was followed by violent peritonitis, which could only be ſubdued by ſuch copious and repeated venæſection, as endangered the patient's life. Theſe two caſes have made ſuch an impreſſion on my mind, that I ſhould be very averſe in future to undertake ſimilar experiments.

which has been related, and in many others recorded in this volume, the effect of ſecretions occurring from the diſordered organs in relieving their irritable ſtate is very manifeſt. In many inſtances opium will not prevent continual efforts to vomit, yet when by magneſ. vitriolat. or purgatives adminiſtered in the form of pills, and clyſters, ſtools are procured, the vomiting ceaſes, the ſtomach retains both food and medicine, and general tranquillity of conſtitution is as ſuddenly reſtored.

A ſlighter Degree of continued local Irritation will produce a leſs violent Diſorder of the digeſtive Organs.

IF then vehement local irritation can produce a violent diſturbance of the chylopoietic organs, it may be expected that a leſs degree of a ſimilar cauſe will produce ſlighter effects of the ſame nature. Indeed, the foregoing caſe was related not merely becauſe it ſeemed worthy of record by itſelf, but chiefly to prepare the reader for the obſervations which are to follow.

This

This ſlighter degree of derangement occurs in the advanced ſtages of lumbar abſceſs, diſeaſed joints, compound fractures, and all kinds of local diſeaſe, which impart conſiderable and continued irritation to the whole conſtitution. We alſo find a leſs important diſeaſe, as for inſtance, a fretful ulcer, keep up a diſorder of the ſyſtem in general, and of the digeſtive organs in particular, which ſubſides as the irritable ſtate of the ulcer diminiſhes. But as practitioners in general may not perhaps have ſo attentively remarked theſe circumſtances as to be familiarly acquainted with them, it may be uſeful to mention a very common occurrence, which cannot have eſcaped obſervation. I allude to the effects of the irritation of teething upon the health of children. The Brain is ſometimes ſo affected as to cauſe convulſions; the digeſtive organs are almoſt conſtantly diſordered. The appetite fails; the tongue is furred; the ſecretions of the liver are either ſuſpended, diminiſhed, or vitiated. The bowels are either purged or coſtive, and the fæces fetid. The fæcal matter is often mixed with mucous and other ſecre-

tions

tions. There is alſo frequently a very troubleſome cough. Such ſymptoms generally ſubſide when the local irritation ceaſes, but ſometimes the diſorder of the digeſtive organs, thus excited, continues and diſturbs the general health of the patient.

If local irritation be capable of diſordering the bowels, it ſeems natural to conclude that it acts upon them through the medium of the brain. If alſo the brain and nervous ſyſtem ſhould be diſordered, without any apparent local diſeaſe, ſimilar derangements may be expected to take place in the functions of the digeſtive organs. In caſes, where ſome morbific poiſon has been abſorbed, producing effects ſimilar to thoſe of ſyphilis, we uſually find the irritation of the conſtitution which enſues to be accompanied with this ſlighter diſorder of the chylopoietic organs.

Whenever, alſo, the nervous energy and general powers of the conſtitution have been weakened and diſordered by any violent diſeaſe, as fever, ſmall pox, meaſles, hooping cough,

cough, &c. the digeſtive organs are frequently affected in conſequence, and ſuch affection becomes, as will afterwards be explained, the cauſe of many ſecondary diſeaſes.

In perſons, likewiſe, who have naturally a weak or irritable ſtate of the nervous ſyſtem, we find the digeſtive organs diſordered in a ſimilar manner. Improprieties in diet will alſo produce a ſimilar ſtate of irritation, weakneſs, and diſorder of the functions of the digeſtive organs.

This ſlighter diſorder of the chylopoietic organs is, in general, manifeſted by a diminution of the appetite and digeſtion, flatulence, and unnatural colour and fœtor of the excretions, which are generally deficient in quantity. The tongue is dry, whitiſh, or furred, particularly at the back part; this ſymptom is moſt apparent in the morning. The fur is greateſt at the back part, and extends along the middle of the tongue to the tip, the edges remaining clean. As the diſeaſe advances, a tenderneſs is felt when

when the epigaſtric region is compreſſed, and the patient breathes more by the ribs, and leſs by the diaphragm than in the healthy ſtate. The urine is frequently turbid.

In this general enumeration of the ſymptoms, ſeveral circumſtances are omitted which occur occaſionally, and which may, when the ſubject ſhall be better underſtood, denote peculiarities in the diſeaſe, and require correſponding peculiarities in the medical treatment. I ſhall here notice a few of them. The appetite is ſometimes moderately good, when the digeſtion is imperfect; and the latter may not be defective, although the diſeaſe ſtill exiſts. In ſome inſtances, indeed, the appetite is inordinate. Tenderneſs of the epigaſtric region on preſſure, is not always an attendant, even on advanced ſtages of the diſeaſe. The bowels are alternately coſtive, and lax even to purging *. The urine is ſometimes pale-co-

* I have known perſons whoſe bowels were ordinarily coſtive, and whoſe general health was much deranged by diſorder of the digeſtive organs, though they were unconſcious of its exiſtence, feel pleaſed that their bowels were in a comfortably lax ſtate; yet on obſerving the ſtools, they reſembled pitch in colour and appearance.

loured and copious like that of hyſterical patients.

Patients affected in the manner above deſcribed commonly declare they are in good health, except that they feel diſturbed by their local complaints; yet they are found, on enquiry, to have all the ſymptoms, which characterize a diſordered ſtate of the digeſtive organs. The mind is alſo frequently irritable and deſpondent; anxiety and langour are expreſſed in the countenance. The pulſe is frequent or feeble; and ſlight exerciſe produces conſiderable perſpiration and fatigue. The patients are ſometimes reſtleſs at night, but when they ſleep ſoundly they awaken unrefreſhed, with laſſitude, and ſometimes a ſenſation, as if they were incapable of moving. Slight noiſes generally cauſe them to ſtart, and they are, to uſe their own expreſſion, very nervous. Theſe circumſtances ſeem to me to indicate weakneſs and irritability of the nervous and muſcular ſyſtems; which, in addition to the diſorder of the digeſtive organs, that has been deſcribed, are the chief circumſtances obſervable relative to the general health of

thoſe patients, whoſe caſes are related in the following part of this paper. By correcting the obvious errors in the ſtate of the digeſtive organs, the local diſeaſe, which had baffled all attempts at cure by local means, has ſpeedily been removed, and the patient has acknowledged that ſuch an alteration has taken place in his general health, as excited his ſurprize.

A Review of the natural Functions of the digeſtive Organs, and an Enquiry into the Signs which denote them to be in a healthy or diſordered State.

BEFORE I proceed, I may be allowed to enter more fully into a conſideration of the ſymptoms which denote diſorder of the digeſtive organs; in order to induce ſurgeons to pay that ſtrict attention to them, which the importance of the ſubject ſo well deſerves. It would indeed be impoſſible for the reader to underſtand, without ſuch prefatory obſervations, my object in the treatment of the caſes which will preſently be related, or the opinions which I have formed, relative to their mode of cure.

The changes which the food undergoes in the digeſtive organs of the more complicated animals are threefold; and diſtinct organs are allotted to each of the three proceſſes. Digeſtion takes place in the ſtomach; chylification in the ſmall inteſtines; and a third proceſs, hitherto undenominated, is performed in the large inteſtines. It is probable that in ſome caſes, one ſet of organs may be more diſordered than the others, and of courſe one of theſe proceſſes may fail more than the reſt. For inſtance, the ſtomach may digeſt the food in a healthy manner, although the inteſtines do not perform their ſhare of the changes, which they ought to effect.

The food is converted in the ſtomach into a viſcid ſemitranſparent ſubſtance called chyme; and that this change is effected by the agency of the ſuccus gaſtricus, is a point as well aſcertained as any in phyſiology. In a ſtate of health this converſion takes place without any appearance of that natural decompoſition which animal and vegetable matter would ordinarily undergo in a warm

and moiſt place. When, however, digeſtion is imperfect, gaſeous fluids are extricated from the alimentary matter. Vegetable food becomes acid, and oils become rancid. Uneaſy ſenſations are alſo felt, and undigeſted aliment may be obſerved in the fæces.

Diſorder of the ſtomach is however more readily perceived by adverting to the ſtate of the tongue, which often indicates an irritable and unhealthy condition of the ſtomach, when no manifeſt ſymptoms of indigeſtion occur. If there be no fever to diſturb the ſecretions in general, the change which is viſible in the tongue can be imputed to no other cauſe than local diſeaſe, or a participation in a diſorder of the ſtomach or lungs. Local irritation or mental anxiety will cauſe a white and dry tongue; but does not this effect ariſe through the medium of an affection of the ſtomach? For although the ſecretions of the tongue muſt partake of the general diſturbance which prevails in fever, their eſpecial diſorder may be, in that caſe, alſo, not improperly attributed to the ſtate of the ſtomach.

The ſtate of the tongue is, in general, an infallible criterion of a diſordered condition of the ſtomach; but it does not point out the kind and degree of that diſorder. In recent and conſiderable affections, where the appetite is loſt, and the digeſtive powers are greatly impaired, the appearances of the tongue are by no means ſo ſtrikingly unhealthy as in more confirmed caſes, where neither the appetite nor digeſtion appear materially deficient. It is probable that a continuance of irritation in the ſtomach may ſo affect the tongue, as to render unnatural ſecretions habitual to the part, and that theſe exiſt independently of the original cauſe, or may be reproduced by trivial degrees of diſorder. Nay, ſometimes the cuticle of the tongue ſeems to have loſt its tranſparency, and to become permanently white, in conſequence of continued irritation.

After making the allowances, which ſuch circumſtances require, we may in general be enabled to detect a diſordered ſtate of the ſtomach by obſervation made on the tongue: and, as it is of conſequence to aſcer-

aſcertain ſuch diſorder at an early period, when the ſymptoms are probably ſlight, this organ ſhould be obſerved in the morning, when it will be found much furred, particularly at the part next the throat. Its appearance may vary in different parts of the day from varieties in the ſtate of the ſtomach, depending on the excitement which is derived from food, or a ſtate of irritation ariſing from too long faſting. The tongues of many perſons with diſorder of the ſtomach look moderately healthy during the day, though they have been ſo much furred in the morning, that it has been deemed neceſſary to ſcrape them.

A diſordered ſtate of ſecretion, either as to quantity or quality, will be the natural effect of irritation of a ſecreting organ. This is evidently the caſe with the tongue; and we may, with great probability, conjecture that the ſame conſequence alſo takes place in the ſtomach. Since the juices of the ſtomach are the immediate agents in digeſtion, that proceſs muſt be diſturbed in proportion as its ſecretions are deficient or vitiated.

If undigeſted matter paſs from the ſtomach into the inteſtines, it can ſcarcely be ſuppoſed that their powers are capable of converting it into chyle; and it may become irritating to thoſe organs in conſequence of the chemical changes, which it may then undergo. When digeſtion is imperfect, animal and vegetable ſubſtances experience conſiderable chemical changes before they leave the ſtomach; and ſimilar changes may continue to take place during the time they are detained in the bowels, unleſs counteracted by the powers of the digeſtive organs; powers which ſeem chiefly to belong to the fluids which are ſecreted into them.

The extent of the power which the inteſtines poſſeſs of converting what they receive from the ſtomach into chyle, or of preventing chemical changes, is unknown. It is probable that much undigeſted matter is abſorbed by the lacteals, when the digeſtive powers fail in their functions. This is apparently the caſe in diabetes, where the vegetable matter floats in the ſerum of the blood, rendering it turbid, and afterwards combines

bines ſo as to form ſugar in its paſſage through the kidnies. The ſtrong odour, which various kinds of food impart to the urine, indicates that different ſubſtances are abſorbed indiſcriminately from the inteſtines. It is probable that a turbid ſtate of the urine, and variations from the natural odour of healthy urine, may very frequently ariſe from a ſimilar cauſe; *viz.* from the imperfect action of the digeſtive organs, in conſequence of which, unaſſimilated matter is taken up by the lacteals, and afterwards ſeparated from the blood in the kidneys. It may be reaſonably conjectured that the ſame powers, by which the kidneys convert the old materials of our body into that peculiar modification of animal matter, which is diſſolved in the water of the urine, and which has been called by the French chemiſts urée, may alſo enable it, in a healthy and vigorous ſtate, to diſpoſe of much unaſſimilated ſubſtance in the ſame way. The further conſideration of this ſubject would, however, lead to a diſcuſſion foreign to the purpoſe of the preſent paper: it will be ſufficient to remark at preſent, that the ſtate of the urine

may

may afford aſſiſtance in aſcertaining the exiſtence of diſorder of the digeſtive organs, and in indicating its nature. It has been already mentioned, in the brief account of the ſymptoms, that the urine is frequently turbid. It ſhould, however, alſo be obſerved, that the quality of the urine greatly depends on the ſtate of the nervous ſyſtem. It is frequently, in the diſorders of which I am ſpeaking, pale-coloured and copious; which is probably owing to a ſtate of nervous irritation, ſuch as exiſts in hyſteria. It is not improbable that diſorders of the digeſtive organs, by cauſing the frequent ſecretion of unnatural urine, may produce irritation, and ſubſequent diſeaſe of the kidneys, and other urinary organs.

Modern phyſiologiſts ſeem to agree in the opinion that the ſuccus gaſtricus is the agent, by which digeſtion is effected; but they are not ſo unanimous as to the immediate cauſe of chylification. It is not improbable that the ſuccus inteſtinalis is a principal agent, although its qualities have not yet been enquired into; for, indeed, the

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inveſtigation would be attended with difficulties almoſt inſuperable.

Since the bile and pancreatic liquor are poured into the inteſtines at a ſmall diſtance from the ſtomach, it is natural to conſider theſe fluids as uſeful in effecting the change, which the alimentary matter undergoes in the ſmall inteſtines, namely, its converſion into chyle. The chyme, or aliment digeſted by the ſtomach, being viſcid, the pancreatic juice has been conſidered as an uſeful and neceſſary diluent, and perhaps this fluid may have other properties with which we are unacquainted.

The uſes of the bile have of late much engaged the attention of phyſiologiſts. Mr Hunter obſerved that it did not ſeem to incorporate with the chyle; and it certainly cannot do ſo and retain its own nature, ſince its colour and taſte are ſo intenſe, that it would impart theſe properties to the chyle, if mixed with it in the ſmalleſt quantity. The difficulty of conceiving that the two fluids can be agitated together by the

the periſtaltic motion of the inteſtines, without becoming incorporated, has led to an opinion that the bile may combine with the alimentary matter, and loſe its original properties; but nothing of this kind is aſcertained. Fourcroy thinks that the alkali and ſaline ingredients of the bile may combine with the chyle, and render it more fluid, while the albumen and reſin may combine with the excrementitious matter. It is, indeed, evident that the bile combines either totally or partially with ſomething ſeparated from the chyle, and exiſts formally in it, and in a ſtate of health uniformly dyes it of its peculiar colour; and therefore t has of late been ſuppoſed, that the bile may ſerve to purify the chyle, by precipitating and combining with its feculent parts *.

It has been ſaid in the brief and general recital that has been given of the ſymp-

* In the enquiry into the probable uſes of the bile, it ought to be obſerved, that in many perſons, in whom that ſecretion is either for a conſiderable time wholly ſuppreſſed, very deficient, or much depraved, it does not appear that the nutrition of the body is defective.

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toms, which characterize diſorder in the chylopoietic organs, that the ſtools are of an unnatural colour and odour. Medical men entertain various opinions reſpecting the colour of the fæces: to me this property ſeems generally to depend on the kind and quantity of the bile. All the ſecretions, which are poured into the alimentary canal, except the bile, are colourleſs or white; if, therefore, this fluid were wanting, the reſidue of the aliment would be of the colour, which might be expected to reſult from ſome of its undigeſted parts combined together. When, for inſtance, the ſecretion of bile is ſtopped by the irritation of teething in children, whoſe diet is chiefly bread and milk, the fæces are white; when this ſecretion is obſtructed in adults, the ſtools are pale like whitiſh-brown paper.

In caſes of diſeaſe, however, coloured excretions may take place from the bowels. There is great reaſon for aſcribing the diſcharges in the diſeaſe called melæna to a vitiated ſecretion from the ſurface of the alimentary canal. I was intimately acquainted

quanted with a patient, who ſuffered repeated and increaſing attacks of conſtitutional irritation. When the diſorder was wrought up, as it were, to a criſis, he was forewarned by a ſenſation, as if his ſtomach was filling, of the occurrence that was about to take place. In leſs than a quarter of an hour he would vomit more than two quarts of a fluid reſembling coffee grounds in colour and conſiſtence. Shortly afterwards very copious diſcharges of a ſimilar darker coloured and offenſive matter, took place from the bowels: but a green viſcid bile, appearing diſtinct and uncombined, was intermixed with this. Theſe evacuations ceaſed in a day or two, and the conſtitutional irritation diſappeared with them.

I examined the bodies of ſeveral perſons, who died under attacks of this nature, and found the villous coat of the alimentary canal highly inflamed, ſwoln and pulpy. Bloody ſpecks were obſerved in various parts; and ſphacelation had actually taken place in one inſtance. The liver was healthy in ſome caſes, and diſeaſed in others. I conclude

clude therefore that theſe diſeaſes, which were termed hæmatemeſis and melæna, aroſe from a violent diſorder, and conſequent diſeaſed ſecretion of the internal coat of the bowels: and that the blood, diſcharged when the affection was at its height, did not flow from any ſingle veſſel, but from the various points of the diſeaſed ſurface.

Indeed I think it probable, that the profuſe diſcharges, which ſometimes follow the continued exhibition of purgatives, conſiſt of morbid ſecretions from the bowels themſelves, and not of the reſidue of alimentary matter detained in thoſe organs. Such evacuations, either occurring ſpontaneouſly, or excited by medicine, frequently relieve irritation of the chylopoietic viſcera.

It ſeems probable that the ſtools which reſemble pitch are principally compoſed of diſeaſed ſecretions from the internal ſurface of the inteſtines, ſince they do not ſeem either like the reſidue of the food or diſcharges from the liver. Can we ſuppoſe that all the black and fetid matter which

was

was diſcharged from the bowels, in the firſt caſe, was poured forth ſolely from the liver?

The ſubject of morbid ſecretions is however particularly illuſtrated by that well-known alvine diſcharge, which ſo much reſembles yeaſt in colour and conſiſtence that it cannot be confounded with fæces, with blood, or with a vitiated ſecretion from the liver. A medical man of my acquaintance took, for ſome diſorder in his ſtomach and bowels, an aperient medicine, which apparently emptied thoſe organs. He ate nothing but little bread in broth for his dinner, and a ſmall quantity with his tea in the evening. He experienced an uneaſineſs in his bowels, and an inclination to evacuate them after he had gone to bed; but he reſiſted this deſire till four o'clock in the morning, when its urgency forced him to riſe. He then diſcharged, what he ſuppoſed to amount in quantity to a gallon, of a matter exactly like yeaſt, unmixed with any bile or fæces. When he aroſe in the morning, he had a ſimilar evacuation of about a quart; and on the ſucceeding day there was a ſolid

a ſolid ſtool, apparently of the ſame ſubſtance, coloured of a light green from an admixture of bile. He had a natural ſtool the next day: his appetite returned, and the uneaſy ſenſations ſubſided.

An unhealthy colour of the fæces may further be attributed to ſome degeneracy in the quality of the alimentary matter; ſuch as may be ſuppoſed to take place when the digeſtive organs fail in the performance of their offices, and different alimentary ſubſtances are in conſequence detained in the bowels, where they may paſs through chemical decompoſitions, and recombinations. But, though I am inclined to allow the full operation of theſe cauſes, the following reaſons lead me to believe that the colour of the fæces generally depends on the kind and quantity of the bile. In the natural ſtate of the digeſtive organs, when there is no peculiarity of diet, and no medicine is taken, the bile alone colours the reſidue of the food. The fæces voided during a ſtate of diſorder of the digeſtive organs are ſometimes partially co-

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loured; which circumſtance cannot be well accounted for upon any other ſuppoſition than that of an irregular ſecretion of the bile. Fluids ſecreted from the inteſtines do not uſually enter into combination with the fæcal matter, but appear diſtinctly when excreted. Thus we find mucus and jelly diſcharged from the bowels, unmixed with the fæces. Medicines which affect the liver produce a very ſudden change in the colour of the fæces. Small doſes of mercury, without any alteration of diet, ſometimes change the ſtools immediately from a blackiſh to a light yellow colour, which indicates a healthy but deficient ſecretion of bile.

Healthy bile in the human ſubject is generally of a deep yellow brown colour; the brown depending on a concentration of the yellow colour. It reſembles the colour of wetted rhubarb; for, if a ſmall portion of either of theſe ſubſtances be put into a large quantity of water, the water will be tinged of a bright yellow colour; this appears therefore to be the proper colour of theſe ſubſtances, but it is ſo concentrated in the

the maſs as to appear of a deep brown. Sometimes, indeed, we find green bile in the gall bladder, when the liver is not diſeaſed. I cannot, however, but think that the natural colour is a yellow, ſo intenſe as to appear brown. Green bile is uſually poured out in circumſtances, where there is evident diſorder of the digeſtive organs; and we cannot well ſuppoſe that there are two kinds of healthy bile. The quantity of this fluid ſhould be ſuch as completely to tinge the excrement of its peculiar colour. By attending, therefore, to the colour of the fæces, the kind and quantity of bile, which the liver excretes, may in general be aſcertained.

The colour of the alvine excretions in diſordered ſtates of the viſcera is various. Sometimes they appear to conſiſt of the reſidue of the food, untinged by bile. Sometimes they are of a light yellow colour, which denotes a very deficient quantity of healthy biliary ſecretion; they may alſo be of a deep olive, of a clay brown, and of a blackiſh brown; all which ſhew a vitiated ſtate of the biliary ſecretion.

Any kind of brown, which dilution will not convert into yellow, I ſhould conſider as unhealthy, ſince the colour of healthy bile is a bright yellow, which by concentration appears brown.

Such are the circumſtances which I have collected from my own obſervation, and the reports of others, relative to the alvine excretions, in the diſorders which have been deſcribed.

I have dwelt thus particularly upon the ſubject of the biliary ſecretion, from a belief that its quantity and quality can, in general, be aſcertained by inſpection, and will therefore ſerve to indicate the preſence of diſorder. Whether the foregoing opinions be correct or not, it will, I think, be generally granted that the excretions from the bowels commonly indicate the healthy or diſordered ſtate of the digeſtive organs.

The effects, which medicine or diet may have upon the colour of the fæces, ought, however, to be conſidered. When the food

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is coloured, and this colour is not altered by digeſtion, it will, of courſe, appear in the fæces; hence if it ſhould be thought deſirable to know accurately the ſtate of the biliary ſecretion, it would be right to reſtrict patients to a diet that is not likely to colour the fæces. The green colour of vegetables tinges the fæcal reſidue of the food. Steel alſo is known to blacken the fæces. It ſhould alſo be remarked that the expoſure of the fæces to air after their expulſion, will, in ſome inſtances, cauſe a conſiderable alteration in their colour. In our endeavours, therefore, to aſcertain whether the liver is performing its office rightly, by obſerving the colour of the fæces, attention ſhould be paid to theſe circumſtances.

I conclude this review of the opinions entertained reſpecting chylification, by obſerving that if the ſuccus inteſtinalis be an agent in this function, diſorder of the inteſtines is likely to affect its ſecretion, and thus impede this ſecond important part of the proceſs of aſſimilation.

The reſidue of the alimentary matter, mixed with the bile, paſſes from the ſmall into the large inteſtines, and there undergoes a ſudden change; it acquires a peculiar fœtor, and becomes what we denominate fæces. This change is ſo ſudden, that it cannot be aſcribed to ſpontaneous chemical alterations, (which would be gradual) but to ſome new animal agency. If the contents of the ſmall inteſtines at their termination, and of the large at their commencement, be examined, they will be found totally different, even within a line of each other; the former being without fœtor, and the latter being in all reſpects what is denominated fæces. Though chemiſts then might ſpeak of the feculent matter of chyle as fæces, yet phyſiologiſts would rather apply that term to the change in the reſidue of the food, which takes place in the large inteſtines, and which ſeems to be effected by the animal powers of thoſe organs. The fæces quickly ſuffer chemical decompoſition out of the body, although they often remain in the bowels without undergoing the ſame kind of change. Their chemical

chemical decompoſition is attended with the ſudden formation of ammonia; yet if they be examined when recent, they are found to contain acids which ammonia would neutralize. The inference, therefore, naturally ariſes, that this third proceſs, I mean the converſion of the reſidue of the aliment into fæces, may, amongſt other purpoſes, be deſigned ſo to modify that reſidue, as to prevent it from undergoing thoſe various chemical changes, which might be ſtimulating to the containing organs, as well as injurious to the general health.

In a perfectly healthy ſtate of the digeſtive organs, probably no chemical decompoſition, even of the fæces, takes places; yet ſuch changes happen, in ſome degree, without apparently producing any injurious conſequences. To chemical changes we may probably attribute the extrication of inflammable air, and the various and unnatural odours of the fæcal matter, which are obſervable in diſordered ſtates of the digeſtive viſcera.

The means by which this modification of the reſidue of the food, which takes place in the large inteſtines, is effected, are but little known. Analogy leads us to refer it to the effects of a ſecretion from the lining of thoſe inteſtines in which it occurs. Now if this ſecretion deviates from the healthy ſtate, in conſequence of an irritated or diſordered ſtate of thoſe organs, we may reaſonably expect a correſponding derangement of the proceſs, by which the reſidue of the food is converted into fæces.

Further Enquiry into the Nature and Effects of that Diſorder of the digeſtive Organs, the Symptoms of which have been recited at Page 16.

HAVING taken this general view of the functions of the chylopoietic viſcera, in order to facilitate the forming a judgment relative to thoſe circumſtances which indicate their derangement, I return to ſpeak more fully of that affection of them, which I have deſcribed, as ariſing from cauſes recited at page 16. This ſubject, it muſt be acknow-

knowledged, is very important, if it can be ſhewn that diſorders of the digeſtive organs are the cauſe of a great number of other diſeaſes. The enquiry would then not only lead us to diſcover the ſource of many diſturbances of the conſtitution, which originate in thoſe of the digeſtive organs (for patients have no ſuſpicion of any diſorder exiſting in them), but would alſo lead to the prevention and cure of many ſecondary diſeaſes of a more vexatious and ſometimes of a more fatal nature, than thoſe from which they originated.

If the tongue be furred at its back part in the morning, when there is no fever, it is reaſonable to infer in general that the ſtate of the tongue is owing to its participating in the irritation of the ſtomach. Such participation produces an alteration in the ſecretions of the tongue; they are either deficient in quantity, or vitiated in quality. A ſtate of irritation in any ſecreting ſurface is, indeed, likely to be attended with the ſame conſequences. It is, therefore, fair to infer that, when a general diſorder of the digeſtive organs

gans takes place, thoſe fluids, which produce the changes that the food undergoes in them, are deficient or depraved, and conſequently that digeſtion and the ſubſequent proceſſes muſt be imperfectly performed. The liver is likely to participate in the diſorder, and the biliary ſecretion to be diminiſhed or vitiated. This circumſtance admits of ocular demonſtration; and I have, therefore, conſidered it as an evidence of a more or leſs general diſorder of the digeſtive organs. A very reaſonable objection may, however, be made to conſidering the derangement of the functions of the liver as a criterion of thoſe of the ſtomach and inteſtines; ſince the liver is independent of the latter organs, and may be the ſubject of a diſorder confined to itſelf. In ſome caſes, alſo, the alimentary canal may be affected, without diſturbing the liver. Such circumſtances may happen occaſionally; but they are not ordinary occurrences, and ſhould be conſidered as exceptions to general rules, which do not militate againſt their common operation. In general, affections of the former influence the functions of the latter; and the ſtate of the biliary ſecretions

cretion affords a very uſeful evidence of a more or leſs general derangement of the chylopoietic viſcera, and ſhould excite our attention to inveſtigate its kind and degree.

I have ſtated, in deſcribing the ſymptoms which denote diſorder of the digeſtive organs, that the fæces are generally deficient in quantity. This circumſtance may be accounted for in various ways. It may be aſcribed to diminiſhed or unhealthy ſecretion of bile, which does not precipitate the uſual proportion of feculent matter from the Chyle. Perſons whoſe bowels are lax, and not inactive in carrying downwards the feculent matter, void it daily in deficient quantities. It may be ſuppoſed too that, either from the deficiency of bile, and conſequent want of excitement, or from the effects of diſorder, a torpid ſtate of the bowels may exiſt, which cauſes them to carry downwards the feculent matter in ſmall quantities. This circumſtance may produce a greater abſorption of the fæces than what is natural, or an accumulation of them in the colon.

That the digeſtive organs in general were affected in the caſes of local diſeaſe, which I am about to record, is moſt evident; but I am aware that many varieties of diſorder may be included in the general deſcription of the ſymptoms, which I have given. Future obſervations may lead to further diſtinctions; but I ſee no impropriety at preſent in ſpeaking of the diſordered ſtate as general; ſince it is probable that no material diſorder can ordinarily take place in one of the digeſtive organs, without diſturbing the functions of the others. When digeſtion is imperfectly performed, the functions of the inteſtinal canal will ſoon participate in the diſorder of the ſtomach. Under theſe circumſtances, the ſecretion of bile will alſo probably become irregular. Should diſeaſe commence in the large inteſtines, as about the rectum, it diſturbs the functions of the ſtomach, and ſecretion of the liver, and becomes augmented in its turn by its ſympathy with theſe parts. Should the liver be diſordered in the firſt inſtance, the ſtomach and bowels may not immediately ſympathize, although they will probably ſoon become affected.

I feel

I feel further warranted in conſidering the ſymptoms, which have been recited in the former part of this paper, as ariſing from a general diſturbance of the functions of the digeſtive organs, from contemplating the effects of blows on different parts of the belly, which do not ſeem to have injured the ſtructure of any ſingle abdominal viſcus, but yet produce effects denoting a general diſorder of theſe organs. The ſymptoms have varied in ſeverity in proportion to the violence of the blow received. In the caſes which were the conſequence of the more forcible injuries the ſymptoms were, a furred tongue; great vomiting, ſo that the ſtomach could retain no food; difficulty of affecting the bowels by medicine; great fever; and even delirium. Indeed, all thoſe effects were produced, which I have repreſented as ariſing from vehement local irritation of remote parts of the body. The diſorder has generally terminated by a profuſe diſcharge of black and fetid ſtools, after which the patient has perfectly recovered. On the contrary, where the ſymptoms conſequent on the blow have been leſs violent, ſo as not to claim ſuch ſtrict attention, the

diſorder has continued. Perſons who had been previouſly in perfect health, have become hypochondriacal, and have had all thoſe ſymptoms of diſorder of the digeſtive organs, which have been already enumerated as ariſing from a leſs degree of local irritation, with ſuch conſequent diſeaſes as originate from ſuch diſorder, and which will be mentioned in the ſubſequent part of this paper.

In order to enquire more particularly into the nature of this diſorder of the digeſtive organs, I have examined the bodies of a conſiderable number of perſons who have died of diſeaſed joints, lumbar abſceſſes, and other great local diſeaſes. I knew that theſe patients had their digeſtive organs diſordered in the manner that I have deſcribed, and that in many of them the ſecretion of bile had been ſuppreſſed for a great length of time, and, when it was renewed, that it was very deficient in quantity, and faulty in quality: yet, on diſſection, no alteration was diſcovered in the ſtructure of the chylopoietic viſcera, which could be decidedly pronounced to be the effect of diſeaſe. It naturally excites ſurpriſe

priſe, that ſuch a ſtate of irritation, and imperfect performance of the natural functions of theſe parts, ſhould exiſt for ſo long a time, as in many caſes it is known to do, without producing organic diſeaſe; ſtill I believe it may be ſet down as a truth, (which has been verified by every obſervation I have made,) that a ſtate of irritation leads to thoſe diſeaſed vaſcular actions, which produce an alteration of ſtructure in the irritated parts.

However, where the diſordered ſtate of the bowels had been of longer duration, I have found the villous coat of the inteſtines ſwoln, pulpy, turgid with blood, and apparently inflamed, and ſometimes ulcerated; and theſe appearances have been moſt manifeſt in the large inteſtines. Having obſerved repeatedly in diſſections of theſe caſes, that the large inteſtines were more diſeaſed than the ſmall ones, it occurred to me, that the fact might be accounted for in the following manner: If digeſtion is incomplete, the undigeſted food muſt be liable to chemical changes, and the products reſulting from this cauſe, are likely

likely to be moſt ſtimulating to the large inteſtines. Indeed, in advanced ſtages of this diſorder, mucus and jelly tinged with blood are diſcharged, and it ſeems probable that a kind of chronic dyſentery may be thus induced.

In ſome inſtances, where the diſorder had exiſted for many years, the bowels have been diſeaſed throughout their ſubſtance; the internal coat being ulcerated, and the peritoneal covering inflamed, ſo that the convolutions of the inteſtines were agglutinated to each other. In theſe caſes the liver, and ſometimes the ſpleen alſo, were much diſeaſed, being tuberculated in every part. Such is the reſult of the information which I have obtained by diſſection.

Accurate attention to the ſubject, eſpecially in medical caſes, may lead to important ſubdiviſions, which I have not yet been able to make. But when I find that irritation of the nervous ſyſtem, however it may originate, deranges the chylopoietic organs, and affects the ſtomach, bowels, and liver, apparently at the

the ſame time, I think it fair to infer, that theſe organs are equally operated on by the ſame cauſe. Diſorders of the brain may affect the chylopoietic organs; and it is well known that this influence is reciprocal. The ſtomach is ſaid to be chiefly concerned in producing theſe effects; but the cauſes of the ſympathetic affection are probably more general. A fit of paſſion has produced jaundice; and the irritation of teething in children frequently ſuſpends the ſecretion of bile; ſo that the ſtools are not in the leaſt degree tinged with that fluid. If the head can thus affect the liver, it is reaſonable to infer, that the liver may reciprocally affect the head. It is very difficult to form an opinion relative to this ſubject; for, in the inſtances which have been mentioned, the affection of the liver may take place, only becauſe it forms a part of the digeſtive organs, and not from a direct ſympathy exiſting between it and the head. Still, however, I do not think it unreaſonable to conclude that irritation of the other chylopoietic organs may, as well as that of the ſtomach, diſorder the ſource of ſenſation.

To diſplay how much hepatic irritation may affect the ſenſorium and conſequently the whole nervous ſyſtem, I inſert the following caſe;

CASE II

A gentleman applied to me with a thickened and tender ſtate of the perioſteum of his tibia. This diſeaſe had troubled him for more than a year, but became at laſt ſo extremely painful that he declared he had not ſlept for three months, and that his life was ſo intolerable that he reſolved to undergo a courſe of mercury, even though in the opinion of thoſe ſurgeons whom he had conſulted, his diſeaſe was not venereal. This duration of the diſeaſe, as it had made no greater progreſs, induced me to coincide in the opinion which had been given him. His tongue was much furred, his appetite was moderate, and he was not conſcious that his digeſtion was otherwiſe than good. His bowels were perfectly regular. I deſired him to take five grains of the pilul. hydrarg. every ſecond night; but before he took them to remark the colour of the diſcharges from his bowels, and to obſerve whether the medicine produced

any change of it. In a week's time he called upon me, and ſaid, I come to tell you the ſtrangeſt thing that perhaps you ever heard, which is, that I actually do not know the preciſe ſpot where the lump on my ſhin was ſituated, and doubtleſs theſe pills which you directed are a moſt wonderful compound of opium. The firſt gave me ſleep, which I had not had for three months. After taking a ſecond, I have ſlept ſoundly all night, and feel myſelf alert in the day. Every other preparation of opium, which I have taken, failed in producing ſleep, and made me ill during the ſucceeding day. After all, continued he, it cannot be the pills that have made me well, for they have had no perceptible effect on me. I aſked him, had he, as I requeſted him, remarked the colour of the alvine diſcharges? He replied, he had, and that before he took the medicine they were (to uſe the patient's own words) as black as his hat, and now they were of the colour of a ripe Seville orange. The great relief ariſing from the correction of the biliary ſecretion was not to me ſo ſtrange, as the patient expected. It is doubtleſs ſuch remarks that have impreſſed ſome

medical men with the opinion that the liver was the root of the evil in all diſorders of the digeſtive organs.

Caſes like the preſent, (and ſeveral ſimilar ones will be found recorded in this work,) appear to me highly valuable on many accounts. They ſhew that hepatic diſorder may diſturb the ſenſorium, either immediately or intermediately, by diſordering other organs concerned in digeſtion; they ſhew how diſorders of the abdominal viſcera may become the cauſe of various other diſeaſes, by diſturbing the ſource of ſenſation and nervous energy; and they further ſhew that unirritating and undebilitating doſes of mercury have, probably by their local action in the bowels, a great influence in correcting the ſecretion of bile, and by this means of relieving hepatic irritation.

Nothing in pathology is more generally admitted, than the reciprocal operation of diſorders of the head and of the digeſtive organs on each other; yet the exceptions to this general rule deſerve to be remarked in a comprehenſive

prehenſive examination of the ſubject. Some perſons have great diſorder of the digeſtive organs, without any apparent affection of the nervous ſyſtem; and even diſeaſes of a fatal nature may take place in the former organs, without affecting the latter. Indeed, if we examine any of the moſt evidently ſympathetic affections, we ſhall find the ſame exceptions. The ſtomach generally ſympathizes with diſorder of the uterus, but it does not invariably do ſo.

Many of the ſymptoms recorded in the deſcription of the ſtate of health of thoſe perſons who are affected by diſorder in the digeſtive organs, denote a diſturbance of the nervous and muſcular powers. When we obſerve this compound diſorder we can ſeldom determine which were the primarily affected organs. General nervous irritation may have preceded the diſorder of the ſtomach and bowels, or may have been cauſed by it. The hiſtory will generally ſhew, that the derangement of the digeſtive organs is ſecondary. When it ariſes from local irritation, it can be produced only through the medium of

the ſenſorium. When it is idiopathic, it frequently originates in cauſes which affect the nervous ſyſtem primarily; ſuch as anxiety, too great exertion of mind or body, and impure air. Sedentary habits and irregularities of diet are cauſes which may be ſuppoſed to act locally on the organs themſelves. Nervous irritability and weakneſs are not perhaps ſuſceptible of a direct cure by medicine; but the diſorders of the digeſtive organs are more corrigible by medical remedies. In practice, theſe require our chief attention; and if their diſorders be corrected, all nervous irritation frequently ceaſes, and health is reſtored. In many inſtances the nervous irritation, which has induced the diſeaſe, is trivial, and would ſoon ceaſe, were it not kept up by the re-action of its ſecondary ſymptoms.

Whether this diſorder of the digeſtive organs be primary or ſecondary, it generally produces irritation in the brain; and thus may cauſe in many inſtances actual diſeaſe of that organ, as will be ſtated in the concluſion of this paper. But derangement of the digeſtive organs ariſes, in many caſes, from eſtabliſhed

bliſhed nervous diſorder: indeed there is often reaſon to ſuppoſe that it is dependent on, or connected with, actual diſeaſe of the brain. In ſuch caſes, the correction of the diſordered functions of the digeſtive organs cannot be accompliſhed; and even if it were practicable, it would not cure the nervous diſeaſe. It is however highly neceſſary and advantageous to attend to the diſorder of the digeſtive organs, where it is only a ſymptom of nervous diſeaſe. The relief of the former will often mitigate, though it cannot cure the latter *.

The

* The ingenious Mr. John Bell has of late publiſhed an opinion, that all nervous diſorders depend on the circulation of blood in the brain. The opinion is founded on this dogma; the brain being inſenſible, there can be no ſuch thing as nervous irritation. Believing ſimilar opinions to be prevalent in the profeſſion, I think it worth enquiring, whether, if the motion of a worm in the ſtomach produces temporary blindneſs or convulſions, there be not ſome nervous irritation? If a man has his leg amputated on account of a compound fracture, and afterwards becomes delirious and dies; I grant that fullneſs of the veſſels of the head will be found on diſſection; but was not the vaſcular action cauſed by preceding nervous irritation? The ſame fullneſs of veſſels and ſigns of inflammation are found in thoſe who die of fevers; but do not the miaſmata which

The connexion of local diſeaſe with general diſorder has been often remarked; it has been formerly attributed to impurity of the fluids; a theory which is not irrational. Imperfect digeſtion muſt influence the qualities of the blood, and all parts of the body may be affected from this ſource. But in accounting for the reciprocal influence of diſorders of the head and the digeſtive organs on each other, the modern explanation of theſe phænomena, by means of ſympathies, is perhaps preferable. Afflicting intelligence will deſtroy the appetite and produce a white tongue in a healthy perſon; and a blow on the ſtomach diſorders the head. Theſe phænomena take place independently of the blood, and can only be explained by admitting that diſturbance of one organ immediately affects another.

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cauſe them affect the brain, and ſuddenly impair and diſturb its energy, and is not then the vaſcular action a conſequence? I would aſk too, practically, does blood-letting cure diſorders in which there is a fullneſs of the veſſels of the head. It muſt be granted, that in many inſtances it temporarily alleviates them, but in others it fails to relieve and even aggravates them.

The

The writings of the ancients abound with paſſages, in which local diſeaſes are attributed to affections of the abdominal viſcera, and the ſame fact has been noticed by ſeveral of the moderns. The French ſurgeons appear to be very ſolicitous to keep the bowels in a cool and tranquil ſtate; and Deſſault aſcribes the origin of eryſipelas to a bilious cauſe. The German ſurgeons, Richter and Schmucker, attribute many local diſeaſes to gaſtric affections; and in Italy, Scarpa views the ſubject in the ſame light. The Engliſh practitioners ſeem to have been leſs attentive to this claſs of diſorders; inſomuch that Fiſcher, a German, who publiſhed an account of the ſtate of medicine in this country, expreſſes his ſurpriſe that the Engliſh ſhould be ſo little acquainted with gaſtric diſeaſes. I know not exactly what ideas theſe gentlemen may annex to the terms gaſtric and bilious diſorders, ſince they do not particularly deſcribe them. I have repreſented the ſubject in the foregoing pages, as it has appeared to me on the moſt attentive examination.

There is alſo an excellent diſſertation, in which

which the effects and treatment of diſorders of the digeſtive organs are particularly deſcribed, inſerted in the eighth volume of the Memoires de la Société Royale de Medicine of Paris for the year 1806, at page 310, entitled Reflections ſur le Traitment de la Manie atrabílaire comparé a celui de pluſieurs autres Maladies chroniques, & ſur les Avantages de la Methode evacuante, par M. Hallé. After deſcribing the diſcharges from the bowels in atrabiliary mania, he obſerves, that a ſimilar ſtate of thoſe organs is found in other diſeaſes, namely dropſy, hypocondriaſis, accompanied with difficulty of breathing and palpitation, obſtinate coughs, and a great number of very different diſeaſes; to all of which the ſame treatment is applicable. That the extremely prejudicial conſequences of diſorders of the ſtomach and bowels have been noticed at all times by perſons of obſervation, and particularly by thoſe who are in the habit of judging of their ſtate by their excretions, is ſufficiently evident. The antients ſought to correct the error by purging with hellebore, and the moderns by more compound purges, to uſe the words of M. Hallé, par le

mélange

mélange de purgatifs réſineux & des mercuriaux. I have not, however, met with any phyſiological inveſtigation of the nature of theſe diſeaſes, nor of the rational objects of cure. It is to promote ſuch an inveſtigation, that I have laid before the public the facts which have come under my obſervation, and the reflections to which they have given riſe.

In inveſtigating the connexion between local diſeaſes and diſorder of the health in general, I can perceive, that failure in the functions and irritation of the digeſtive organs may act prejudicially on the ſyſtem in general in various ways. They may produce weakneſs, for ſtrength and vigour ſeem to ariſe from the converſion of our food into perfect blood. They may produce an impure ſtate of that fluid, and they may produce great irritation of the brain, and thus influence the whole body. However, what I have to obſerve reſpecting the cauſes and cure of local diſeaſes will be moſt properly introduced and beſt underſtood after the caſes have been recorded, upon which the opinions have been founded.

The

The reſult of all theſe obſervations, which I have been able to make, relative to this ſubject, has induced me to believe that the diſorder of the digeſtive organs, cauſed by the various circumſtances which have been recited, conſiſts in a weakneſs and irritability of the affected parts, accompanied by a deficiency or depravity of the fluids ſecreted by them, and upon the healthy qualities of which the due performance of their functions ſeems to depend. This opinion is deduced immediately from the conſideration of the ſymptoms, and confirmed by all the collateral evidence, which we can collect. The duration of the affection, without fatal conſequences, ſhews that it is a diſorder of functions, and not a diſeaſe of ſtructure. Diſſections confirm the opinion. Blows which excite general irritation of the digeſtive organs, produce alſo the ſymptoms which characterize the like diſorder, when it ariſes from nervous irritation, or is excited by intemperance. I doubt not but every one will, on reflection, conſider the diſorders of the digeſtive organs to be of the firſt importance, and will perceive the propriety of diligently

enquiring

enquiring into their nature, that we may know them when they exiſt, and that our attempts to remedy them may be conducted on rational principles. This conſideration will, I truſt, vindicate me for employing ſo much time in an inveſtigation which, perhaps, ſome may conſider as tedious and unprofitable.

Occaſional Effects of Diſorder of the digeſtive Organs.

IT is generally admitted, that diſorders of the chylopoietic viſcera will affect the ſource of ſenſation, and conſequently the whole body; but the variety of diſeaſes, which may reſult from this cauſe, has not been duly weighed and reflected on.

It may produce in the nervous ſyſtem a diminution of the functions of the brain, or a ſtate of excitation, cauſing delirium; partial nervous inactivity and inſenſibility, or the oppoſite ſtate of irritation and pain. It may produce in the muſcular ſyſtem, weakneſs, tremors, and palſy; or the contrary affec-

affections of ſpaſm and convulſions. It may excite fever by diſturbing the actions of the ſanguiferous ſyſtem; and cauſe various local diſeaſes by the nervous irritation, which it produces, and by the weakneſs, which is conſequent on nervous diſorder or imperfect chylification. Or if local diſeaſes occur in a conſtitution deranged in the manner which I have deſcribed, they will become peculiar in their nature and progreſs, and difficult of cure. Affections of all thoſe parts which have a continuity of ſurface with the ſtomach; as the throat, mouth, lips, ſkin, eyes, noſe, and ears, may be originally cauſed or aggravated by this complaint. I muſt obſerve, before I proceed to the relation of caſes, that ſuch a diſorder of the digeſtive organs as I have deſcribed exiſted in every inſtance. I do not take upon myſelf to ſay that it was the primary cauſe of the general derangement of the conſtitution, with which the local diſeaſe appeared to be connected; it might have been the conſequence, as indeed has been ſtated in theſe preliminary obſervations.

Treatment.

I ſhall now proceed to mention the plan which

which I have purſued in the treatment of theſe diſorders, when they have been connected with ſurgical diſeaſes: with what degree of ſucceſs, the following caſes will demonſtrate. I do not feel altogether competent to give full directions relative to this ſubject; becauſe I have never attended to medical caſes with that degree of obſervation which would lead me properly to appreciate the efficacy of different medicines, when adminiſtered either in their ſimple or compounded forms. The ſubject is ſo important, that the public would be highly indebted to any practitioner, who would point out the varieties of theſe diſeaſes, and the appropriate modes of cure. The method of treatment, which I have adopted, is ſimple, and founded on the opinions I have formed of the nature of the diſeaſe, and on phyſiological views of the functions of the affected organs. Believing the diſordered parts to be in a ſtate of weakneſs and of irritability, my object has been, to diminiſh the former and allay the latter. Believing alſo that the ſecretions into the ſtomach and bowels, upon the healthy ſtate of which the due performance

mance of their functions depends, were, in conſequence of ſuch diſorder, either deficient in quantity or depraved in quality; I have endeavoured to excite, by means of medicine, a more copious and healthy ſecretion.

In conformity to theſe views of the ſubject, the patients have been recommended to be particularly attentive to their diet. The food ſhould be nutritious, and eaſy of digeſtion: ſtrong plain broths, animal food of looſe texture, milk, eggs, and farinaceous vegetables, are the articles which appear moſt adviſable. But, as cuſtom and inclination have ſo great an effect in regulating the actions of the ſtomach, I have contented myſelf with recommending patients not to eat any thing, which it was probable that they could not digeſt. It ſeems reaſonable to ſuppoſe, that, if the food be properly digeſted, it will not irritate the inteſtinal canal; but that, if digeſtion fails, the animal and vegetable matters will undergo chemical changes in their paſſage through the long tract of inteſtines, and thereby maintain a ſtate of irritation in thoſe organs. I have urged patients not to oppreſs

preſs the powers of the ſtomach by too great a quantity of food, nor to take a ſecond meal, until time has been allowed for the digeſtion of the firſt, and for the recovery of the powers of the ſtomach. Whilſt I have thus advised patients to eat moderately and not too frequently, I have alſo cautioned them not to let the ſtomach become irritable by too long abſtinence. I have ordered five grains of powdered rhubarb an hour before dinner, with a view of inviting ſecretions into the ſtomach, and of preparing it for the office of digeſtion. This gentle excitation perhaps induces it to expel any reſidue of alimentary matter, and creates a kind of artificial appetite; ſo that perſons habitually ſubject to indigeſtion experience very conſiderable benefit from the practice. Where rhubarb has diſagreed, columbo has been ſubſtituted.

The quantity of food ſhould of courſe be proportionate to the powers of the ſtomach. If it receives more than it can digeſt, no nouriſhment is obtained from the ſuperfluous quantity, and the undigeſted aliment not only acts injuriouſly in the bowels,

but in the blood, and in the urine, as has been mentioned. There is alſo another view of the ſubject. Moderation in diet not only inſures the complete digeſtion of the aliment, but it prevents the blood veſſels from being overloaded and kept in a ſtate of action exhauſting to their ſtrength. When alſo important organs may be in a ſtate of nervous irritation and diſorder of function, if there be a plethoric ſtate of the blood veſſels at the ſame time, thoſe vaſcular actions are likely to enſue, which may produce an alteration of their ſtructure, and irremediable diſeaſe.

The function of digeſtion will not, however, go on well, even where theſe circumſtances have been attended to, if the ſtomach be deprived of a ſtimulus to which it has been long accuſtomed. Uneaſy ſenſations will be experienced, denoting, if I may ſo expreſs it, a diſcontented ſtate of this organ, and a want of the expected ſtimulus. It is on this account injurious wholly to reſtrain thoſe patients from the uſe of wine who have been in the habit of taking it. A moderate quan-

tity of ſuch a ſtimulus may be allowed after dinner, to prevent uneaſy ſenſations and to promote digeſtion; but ſtrong fermented liquors muſt be injurious at any other period. It is wrong to ſtimulate the ſtomach when it has no taſk to perform.

Even our food muſt be conſidered as exerting a medicinal influence in diſorders of the ſtomach, when that organ is irritable. A vegetable diet and abſtinence from fermented liquors may tend to tranquillize it. On the contrary, when it is weak as well as irritable, that aliment which is moſt readily digeſted is to be preferred, and cordials are ſometimes beneficial. The effects of food and medicine can never be conſidered as reſulting from their operation on the ſtomach ſolely, but from their conjoint influence upon the nervous ſyſtem in general. Irritability of the ſtomach may ariſe from that of the brain, and unſtimulating diet may tend to tranquillize the latter organ, and thereby alleviate the diſorder of the former. On the contrary, a more generous diet may, by exciting the nervous ſyſtem, produce that degree of energy

in its actions, which invigorates the ſtomach, and tranquillizes its diſorder. It may further be obſerved in ſome caſes, that the kind of medicines or diet which is ſerviceable to the ſtomach, may aggravate the nervous diſorder; and on the contrary, that thoſe means which ſeem to tranquillize nervous irritation tend to diminiſh the powers of the ſtomach.

Bark and ſteel are not uncommonly given in theſe diſeaſes to increaſe the powers of the ſtomach: they ought, I think, to be adminiſtered in ſmall doſes, and never when the tongue is dry; as they ſeem to ſuppreſs thoſe ſecretions, which in many caſes are already deficient; and the increaſe of which would tend to relieve irritation in the affected organs. I mention this opinion, however, rather to account to the reader for theſe medicines not having been preſcribed in the ſubſequent caſes, than from any other motive; as I do not feel perfectly competent to decide upon their degree or kind of utility.

Vegetable diet-drinks appear to me very uſeful

uſeful in tranquillizing and correcting diſorders of the ſtomach and bowels, for this is the manner in which they ſeem to be efficacious in the cure of local diſeaſes. The vegetables preſcribed in the different formulæ are ſo diſſimilar, that we can ſcarcely ſuppoſe that they act ſpecifically upon the local diſeaſe. Even Sweet-wort has obtained conſiderable celebrity. When diet-drinks fail to correct the diſorders of the digeſtive organs, they alſo fail to produce any amendment on local diſeaſes. Such obſervations have induced me to believe that they have the utility, which I have aſcribed to them, of tranquillizing and correcting diſorders of the ſtomach and bowels. It is allowable to form an opinion from ſuch obſervations, though I am ſenſible of their invalidity as arguments to prove its truth.

A regular diurnal evacuation of the bowels is particularly neceſſary, ſince the detention of the fæces muſt prove irritating to theſe organs. Purging medicines ſometimes relieve unpleaſant ſenſations; but they do not in general produce even this effect; and all active

purges ſeem to me to increaſe the diſorder It is natural to ſuppoſe that ſtrong ſtimuli will aggravate the unhealthy condition of weak and irritable parts.

I have expreſſed my opinion of the manner in which the continued exhibition of purgative medicines, in ſuch doſes as do not immedidiately purge, relieve diſorders of the digeſtive organs, by producing morbid ſecretions which afford conſiderable relief, both when they occur ſpontaneouſly or are thus induced. This plan of practice is what Dr. Hamilton has ſuggeſted, and the utility of which he has ſo ſucceſsfully elucidated. I am aware that laxative medicines may relieve irritation merely by augmenting the natural ſecretions of the viſcera, and thus unloading their veſſels; and alſo by determining the fluids from the head, when the nervous ſymptoms are aggravated by a plenitude of the veſſels of the brain. As I have found the lenient plan of treatment, (that of exciting the periſtaltic action of the bowels, ſo as to induce them to clear out the whole of the reſidue of the food; without irritating them,

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ſo as to produce what is ordinarily called purging,) particularly ſucceſsful, I have rarely deviated from it. I am not, therefore, warranted from experience in ſpeaking deciſively reſpecting the more free uſe of purgative medicines.

It is difficult, in many caſes, to regulate the actions of the bowels either by diet or medicine. They are coſtive for a time, and then fits of purging come on. The former ſtate muſt be obviated, in order to prevent the latter. Medicines which excite a healthy action of the bowels in one perſon, are either inert or too active in another. Doſes, which would have no effect in a ſtate of health, become purgative in this diſorder; a circumſtance which ſhews that the bowels are irritable. There are ſome rare inſtances of the contrary, in which it is exceedingly difficult to excite the actions and ſecretions of theſe viſcera. The object which I have had in view, in all caſes, is to excite the periſtaltic action of the bowels, without irritating them, ſo as to induce them to

pour forth and evacuate their own fluids. The adminiſtration of purgative medicines in very ſmall doſes, at regular intervals, is in many caſes the beſt mode of effecting this purpoſe.

In giving purgative medicines I have endeavoured to combine them, ſo as to excite and ſtrengthen at the ſame time. Rhubarb, columbo, and kali vitriolat. have been given together; or an infuſion of gentian with ſenna or tincture of rhubarb. When the infuſion of gentian with ſenna has been given, it has been preſcribed, in the ſubſequent caſes, according to the following formula, which is in uſe at St. Bartholomew's hoſpital:

℞. Infuſ. gentian. comp. ℥ j.
Infuſ. ſennæ, ʒ ij.
Tinct. cardamom. comp. ʒ j. M.
Fiat hauſtus, bis quotidiè, vel pro re natâ, ſumendus.

It is ſometimes neceſſary to increaſe the quantity of infuſion of ſenna. I have found in

in ſome caſes, that the purgative medicines and ſpices diſſolved in ſpirit and water, have anſwered better than any thing elſe, in producing a ſufficient, but not too copious diſcharge from the bowels. Equal parts of compound tincture of rhubarb and ſenna is the formula to which I allude. When irritation in the large inteſtines has been denoted by the mixture of mucus and jelly with the fæces, and ſudden and urgent calls to void them, I have adviſed oily and mucilaginous medicines as aperients: as caſtor oil, mixed with a large proportion of mucilage. My ſole object, however, has been to regulate the ſtate of the bowels; and when they have been regular without medicine, I have rarely recommended any.

At the ſame time, I have not been inattentive to the error in the biliary ſecretion, which exiſts in the greater number of theſe caſes. I have endeavoured to correct this error by the adminiſtration of ſuch ſmall doſes of mercury, as do not irritate the bowels, and are not likely to affect the conſtitution, even though perſevered in for a conſiderable time.

In this ſtate of the digeſtive organs, calomel, in ſmall quantities, ſometimes proves irritating. I have combined it, as in Plummer's pill, and have given one grain every other night. Where this doſe produced uneaſy ſenſations, or acted as an aperient, five grains of the pil. hydrarg. were ſubſtituted in its place; and even this quantity has been diminiſhed in ſome caſes. When it appeared neceſſary, on account of the biliary ſecretion, and when the calomel did not irritate the bowels, I have increaſed the doſe. The relief, which arises from the increaſe or correction of the biliary ſecretion, in the majority of theſe caſes, ſhews how much the liver is concerned in cauſing or aggravating the ſymptoms in theſe diſeaſes.

There are numerous and undoubted proofs of the utility of mercury, in correcting and augmenting the biliary ſecretion; but the mode of adminiſtering it has not, perhaps, been ſufficiently attended to. I have known patients, who had voided nothing but blackiſh ſtools for ſome months, diſcharge fæces of a light yellow colour, denoting a healthy,

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but deficient ſecretion of bile, upon taking ſuch ſmall doſes of mercury. The effect of this change on the conſtitution and ſpirits has been ſurpriſingly great; though the ſtate of the ſtomach did not appear to be altered. The uſe of mercury by inunction, ſometimes acts beneficially, in correcting the biliary ſecretion; but if the conſtitution be irritated, and weakened by that medicine, the actions of the liver are diſturbed; and the digeſtive organs in general, become deranged. Mercury, in my opinion, acts moſt certainly and efficaciouſly, when taken into the bowels, and a much ſmaller quantity will ſuffice, when its application is in this manner rendered chiefly local.

Although experience has made me think very highly of the efficacy of ſmall doſes of mercury, in exciting and correcting the biliary ſecretion; yet it ought to be mentioned, that in ſome few caſes, this medicine fails to produce its uſual effects, and that the biliary ſecretion becomes healthy without its adminiſtration.

Facts

Facts are wanting, to enable us to aſcertain, whether mercury meliorates and augments the ſecretions of the other digeſtive organs, as it does that of the liver. The ſtomach frequently appears worſe during its employment, whilſt the ſtools are conſiderably better; I have, in ſuch caſes, diſcontinued the medicine, and returned to it again if the ſtate of the liver made it neceſſary. When benefit is obtained from a ſmall quantity of medicine, we naturally expect an increaſed advantage from an augmented doſe; this is ſo natural an error, that an admonition againſt it appears neceſſary. I have obſerved in ſome inſtances, where ſmall doſes of mercury have unexpectedly affected the mouth, that conſiderable benefit ſeemed to ariſe from this circumſtance. Yet it is wrong, in general, to augment the doſe of the medicine, ſo as to create even local irritation in the bowels by it. The various effects of mercury in diſorders of the digeſtive organs cannot, I think, be underſtood, but by conſidering, not merely its local operation on theſe organs, but alſo its action on the conſtitution at large. When we ſee the biliary ſecretion corrected by a few

grains

grains of the pilul. hydrarg., as in the ſecond caſe, we cannot but believe its action to be local. When the medicine is given in larger doſes, it exerts an influence on the whole conſtitution, and alters the ſtate of the nervous ſyſtem. It thus controuls diſeaſes dependant on an irritable and diſturbed ſtate of the nervous functions: this I think I ſhall be able to ſhew by caſes related in that part of this book which treats on diſeaſes induced by the abſorption of morbific animal poiſons; and thus mercury may relieve diſorders of the digeſtive organs by relieving the nervous diſorder which cauſed them. But when mercury is given in ſtill larger doſes, as it is for the cure of ſyphilis, it never fails to irritate and weaken the conſtitution, and thus to diſorder the digeſtive organs. Perſons who are ſalivated have, as far as I have remarked, the functions of the liver and digeſtive organs conſtantly diſturbed by that proceſs. I cannot, therefore, but think that it is wrong to uſe mercury in hepatic affections to that extent, which would diſorder the functions of the liver, if they were previouſly healthy. In the majority of caſes the diſorder has exiſted

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for a long time, and has become habitual; therefore it is not likely to be cured ſuddenly. For this reaſon, we ſhould adapt our treatment to the more rational expectation of effecting a gradual recovery than a ſudden cure. The moſt judicious treatment will not remedy the diſeaſe, if the exciting cauſes continue to operate; ſuch as improprieties of diet, agitation of mind, ſedentary habits, or impure air.

The following caſes will afford ſufficient teſtimony of the efficacy of ſuch ſimple treatment, as I have recommended. In ſome inveterate caſes, apparently depending on eſtabliſhed nervous diſorder, it has been ineffectual. Under ſuch circumſtances, the nervous affection appears to require the principal attention.

When the ſtate of the health required it, or the diſeaſe did not yield to the treatment, which I have deſcribed, I have referred the caſe to the phyſician; under whoſe direction benefit has been obtained by medicines of more activity than thoſe which I had ventured

tured to recommend, conjoined with tonics, and thoſe medicines which are uſually termed nervous.

In inveſtigating the treatment of theſe diſorders, it is neceſſary to aſcertain, not only what medicine is beneficial, but alſo what change it produces in the circumſtances of the diſorder. The adminiſtration of a medicine may in one caſe be ſucceeded by a diſcharge of bile, and a ſtriking relief from long-continued and diſtreſsful feelings: yet the ſame medicine may be given in many other inſtances without the ſame conſequence. Was the change, then, in this inſtance accidental? or muſt it be attributed to ſome unnoticed peculiarity in the diſeaſe or conſtitution?

I have generally explained to the patients the objects which I had in view, in correcting diſorders of the digeſtive organs, by ſaying that there are three things which I conſider as right and neceſſary to the cure of diſorder. Firſt, that the ſtomach ſhould thoroughly digeſt all the food that is put into it. The patient perceiving the neceſſity of obtaining this

this end, becomes attentive to his diet, and obſerves the effect which the quantity and quality of his food and medicines have upon his feelings, and the apparent powers of his ſtomach. Secondly, that the reſidue of the food ſhould be daily diſcharged from the bowels: here too, the patient apprized of the deſign, notes what kind and doſe of purgative medicine beſt effect the intention; and whether it anſwers better if taken at once, or at intervals. Thirdly, that the ſecretion of bile ſhould be right, both with reſpect to quantity and quality. In caſes wherein the ſecretion of bile has been for a long time deficient or faulty, I recommend, as I have ſaid, unirritating and undebilitating doſes of mercury to be taken every ſecond or third night, till the ſtools become of a rhubarb colour. This mode of exhibiting the medicine has at leaſt the advantage of being innocent, and if months elapſe before the object is accompliſhed we cannot wonder at the tardineſs of the cure, when we conſider the probable duration of the diſorder, prior to our attempts to correct it. The patient is relieved in proportion as the end is accompliſhed, which

feelingly

feelingly induces him to perſevere in ſuch innocent meaſures. By thus engaging the co-operation of the patient, the practitioner will, in my opinion, derive conſiderable advantage in the treatment of the caſe.

Whenever circumſtances would permit, I have recommended the patients to take as much exerciſe as they could, ſhort of producing fatigue; to live much in the open air; and, if poſſible, not to ſuffer their minds to be agitated by anxiety, or fatigued by exertion. The advantages of exerciſe in nervous diſorders, upon which thoſe of the digeſtive organs in general ſo greatly depend, appear to me very ſtriking. It were to be wiſhed that we had ſome index to denote the ſtrength and irritability of the nervous ſyſtem, ſerving as the pulſe does with regard to the ſanguiferous organs. Perhaps the ſtrength, agility, and indefatigability of the muſcles may be regarded as the ſureſt evidence of energy of nervous power and bodily vigour. If this were granted, however, it would follow that many perſons, poſſeſſing great nervous power, have nevertheleſs great nervous irritability. Many

people, who are extremely irritable and hypochondrical, and are conſtantly obliged to take medicines to regulate their bowels whilſt they live an inactive life, no longer ſuffer from nervous irritation, or require aperient medicines, when they uſe exerciſe to a degree that would be exceſſive in ordinary conſtitutions. The inference which I draw from caſes of this deſcription is, that nervous tranquillity is reſtored in conſequence of the ſuperfluous energy being exhauſted by its proper channels, the muſcles. When, on the contrary, the nervous ſyſtem is weak and irritable, exerciſe ſeems equally beneficial; but caution is here requiſite as to the degree in which it ſhould be taken. A weak and irritable patient may not be able to walk more than half a mile without nearly fainting with fatigue on the firſt day of the experiment; but by perſevering in the effort, he will be able to undergo conſiderable muſcular exertion without wearineſs Does not this imply a conſiderable increaſe of bodily ſtrength, and is not the acquiſition of ſtrength the chief deſideratum in the cure of many diſorders? The

nervous irritability alſo when dependant on weakneſs alone will proportionately diminiſh with its cauſe. In the latter caſe, the nervous energy ſeems to be augmented in conſequence of our increaſing the demand for it. I am induced to make theſe theſe obſervations, from a belief that exerciſe is not employed as a medical agent, to the extent that its efficacy ſeems to deſerve. When the diſorders, which have been the ſubject of this paper, have been long continued, they do not admit of a ſpeedy cure; hence attention to diet, air, exerciſe, and mental tranquillity, are more decidedly beneficial than medicines. Surgeons in London meet with frequent and convincing inſtances of the efficacy of pure air. Patients under the irritation of a local diſeaſe, who ſcarcely eat or ſleep in town, recover their appetite, digeſtion, and ſleep, ſo ſuddenly on their removal into the country, as to leave no room for doubting, that the change of air has produced this beneficial alteration in their health. The whole of the plan of treatment which is here recommended is ſo ſimple, and apparently ſo inefficient, that its power might reaſonably

be doubted, did not facts atteſt its utility. I ſhould not have thought it right to have thus related it in detail, but for the purpoſe of avoiding repetition in the recital of the caſes which are to follow; and alſo becauſe it ſeemed right to ſtate as explicitly as poſſible to the younger part of the profeſſion what are the curative intentions in diſorders of this nature*.

* After I had written the above account of the treatment, which I had found the moſt ſucceſsful in the correction of diſordered ſtates of the digeſtive organs, I was much gratified by the peruſal of Dr. Hamilton's publication on the Effects of Purgative Medicines. I think there is a great coincidence in the mode of treatment which I have deſcribed, and that which is ſanctioned by his more extenſive experience. He preſcribes purgative medicines to act as eccoprotics, to excite but not to ſtimulate the bowels; and he combines with them generally unirritating doſes of mercury. Dr. Hamilton's plan of treating theſe diſeaſes alſo accords very much with that of M. Hallé, to whoſe Memoir I have referred the reader.

CASES.

CASES.

SECTION I.

On Nervous and Muſcular Diſorders.

LONG before my attention was excited to diſorders of the digeſtive organs, I had remarked that there was a paralytic affection of the lower extremities, reſembling that which is produced by a diſorder of the medulla ſpinalis, in conſequence of diſeaſe of the bodies of the vertebræ. This paralytic affection alſo appeared to me to vary with the ſtate of the patient's health.

Theſe obſervations led me to propoſe a method of treatment, which proved ſucceſsful in the caſes of two young ladies, who were affected in this manner. The iſſues, which had been ineffectually kept open in the back, were healed; and the ſtate of the health in general was amended by country air, exerciſe, attention to diet, and a few

ſimple medicines. The uſe of the limbs returned in proportion as the health became eſtabliſhed. Such were the obſervations which I had made relative to this ſubject, when I met with the following caſes.

CASE III.

A young lady, whoſe ſtomach and bowels were diſordered in the manner already deſcribed, became gradually affected with weakneſs of the lower extremities, and pain in the loins. The pain became at length very ſevere, and was aggravated in a manner almoſt inſupportable by the agitation of a carriage. This lady could ſcarcely walk, and gave a deſcription of the ſtate of her limbs, ſo exactly reſembling that which is ſometimes conſequent to diſeaſes of the vertebræ, that I thought it right to examine the ſpine. I ſtruck with my finger the ſpinous proceſs of each lumbar vertebra, and upon touching one in particular, the patient complained of great pain; but preſſure on the contiguous vertebræ alſo cauſed much uneaſineſs. Under theſe circumſtances I placed a bliſter on each ſide of the ſpine, and kept up a diſcharge from the ſurface

face by dreſſing it with ſavine cerate. Theſe means, with reſt, relieved her ſufferings; but, as her health declined, ſhe went into the country, where ſhe ſoon became much better. The bliſters were now ſuffered to heal, and ſhe ſhortly afterwards had recovered ſo much, as to take long rides on a rough-going horſe. She returned from the country in good health, and was both muſcular and fat. About a year afterwards ſhe was ſo ill, in the ſame way, that ſhe wiſhed to have iſſues made in the back: but I would not conſent to this, from knowing that the bone could not be diſeaſed. Of this return of pain in the back, and weakneſs in the lower extremities, ſhe again got well, upon amendment of her health in general. Since that period, now five years ago, ſhe has been, ſometimes, very well, at others, pale and emaciated; and theſe changes have correſponded with the natural or deranged ſtate of her bowels.

CASE IV.

I was conſulted on the caſe of a young lady, who had been bliſtered ſeverely for a pain at the bottom of her back, which was

chiefly felt at the junction of the ilium and ſacrum. It was ſuppoſed, that diſeaſe had taken place in the bone from ſome injury, and had affected the ſacral nerves: for ſhe could not ſtand without ſupport, ſo great was the weakneſs in the front of the thighs. There was no projection of the vertebræ. If the ſacral nerves had been affected, the leg ought to have ſuffered the greateſt ſhare of pain and weakneſs; but that was not the caſe. She had no appetite; her tongue was greatly furred; her bowels coſtive; and pulſe generally 110. I ſtrongly objected to making iſſues in this caſe; but as the patient's ſufferings increaſed, it was done. She went into the country, and died in four or five months. The bone was found, upon examination, to be perfectly healthy; but the meſenteric glands and lungs were diſeaſed, and it was concluded that ſhe died of conſumption. I could not learn the ſtate of the liver, nor do I know whether its appearances were particularly attended to.

CASE V.

A young lady had been confined about ſix months to her chamber, on account of pain

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in the loins, and weakneſs of the lower extremities, which prevented her from ſtanding or walking. The weakneſs of her limbs had been gradually increaſing for a year and a half, before it became ſo bad as to make her incapable of moving about. Iſſues had been kept open, during that time, on each ſide of the ſpine; but, as the patient received no benefit, my opinion was aſked reſpecting the ſeat of the diſeaſe of the bone: for it was concluded, that the iſſues had only failed from not having been made in the right place. I found, upon inquiry, that the chief ſeat of her pain was in the poſterior edge of the liver. Indeed, that viſcus was enlarged, ſo as to be felt in the epigaſtric region, and was ſo tender as to cauſe much pain on being compreſſed, at any part, along the cartilages of the ribs. Her tongue was furred; her appetite deficient; digeſtion bad; bowels coſtive; and ſtools black, or elſe untinged with bile. I had no heſitation in adviſing, that the iſſues ſhould be diſcontinued; and that attention ſhould be chiefly directed to rectify the diſorder of the chylopoietic viſcera. Mild mercurials and aperients were given, by which, with other means, ſhe

got

got materially better in health, and was able to walk about as well as ever. The gentleman who attended this patient, met me accidentally, two months afterwards, and informed me that ſhe was quite well. I ſaid, that as her diſeaſe had been a long time in forming, it could hardly be expected that ſhe ſhould recover ſo ſuddenly. He conſidered this expreſſion as implying ſome doubt of his accuracy, and, therefore, ſent the patient to me in the morning. She came from Lambeth, in a hackney coach, and looked very well: ſhe obſerved; that long before her confinement, ſhe could not have borne the agitation of a carriage; but that now, ſhe did not feel it. I have been informed, by ſeveral intelligent ſtudents, that ſimilar caſes have occurred in the hoſpital: as I was not a witneſs of theſe, I ſhall not relate them. I ſhall, however, mention one, which I ſaw, and ſuperintended myſelf; although it is, in ſome meaſure, imperfect, as the patient quitted the hoſpital ſuddenly, without our knowing where he went to.

CASE

CASE VI.

Thomas Crighton, aged twenty-three, was admitted into St. Bartholomew's Hoſpital, on account of a palſy of his limbs. About a year before, while the uſe of his limbs was yet unimpaired, he was attacked repeatedly with violent pain in the bowels; uniformly preceded by coſtiveneſs, and, generally, terminated by a copious diſcharge of looſe, fetid, black ſtools. The relief afforded by the diarrhœa was ſpeedy and uniform. In the courſe of ſix months his lower extremities became affected with occaſional twitchings, and he found that he could not regulate their motions in walking: this increaſed to ſuch a degree as to make him incapable of taking any exerciſe. He had, at the commencement of his illneſs, a confuſion of viſion; and a conſtant and violent pain in the head. The former ſymptom increaſed ſo much, that he could diſcern no object diſtinctly; a candle, for inſtance, although held near him, appeared as large as the moon. The ſenſation of his lower extremities continued perfect; but the actions of the bladder were no longer under the controul of the will; the urine

ſome-

ſometimes flowing involuntarily; and, at others, being retained for ſome hours, with conſiderable pain. He afterwards, began to loſe the uſe of his upper extremities: the left hand and arm were more affected than the right; but there was no difference in the affection of the leg on the ſame ſide. His ſpeech, alſo, became much impaired; he heſitated and faltered conſiderably, and the tones of his voice were irregular, ſo that, at length, he could ſcarcely make himſelf underſtood. At the time of his admiſſion into the hoſpital, there was an entire loſs of voluntary motion of the lower extremities, and a great diminution of that of the upper. The bowels were deranged; there was conſtant head-ache; the ſpeech was very indiſtinct; and viſion ſo imperfect, that he could not read the largeſt print. An iſſue was made in the neck, and ſome medicines were preſcribed, under the direction of the phyſician. As the treatment did not prove beneficial, I was deſired to examine the ſpine, and found ſuch a curvature and projection of the ſpinous proceſſes of the upper lumbar and lower dorſal vertebræ, that I thought, the bodies of thoſe bones muſt be

diſeaſed. I was, therefore, inclined to attribute the paralyſis of the lower extremities to this diſeaſe of the ſpine; and, conſequently, directed, that iſſues ſhould be made on each ſide of the projecting vertebræ. As this ſuppoſition would not account for the paralytic affection of the parts above, and as the bowels were deranged, I ordered two grains of calomel with eight of rhubarb, to be taken twice a week, and ſome infuſion of gentian with ſenna, occaſionally. After uſing theſe medicines, for about three weeks, his bowels became regular, the biliary ſecretion healthy, and his appetite good. He could move his hands and arms nearly as well as ever; and his eye-ſight was ſo much improved that he could read a news-paper; indeed, it was nearly well. The functions of the bladder were completely reſtored *; his ſpeech became articulate; and his general health, in every reſpect, much improved. He remained in the hoſpital about two months, but with

* I have ſeen ſeveral caſes which induce me to believe that the weakneſs of the ſphincter veſicæ, which occaſions young perſons to void their urine during ſleep, very frequently ariſes from the ſame cauſe.

very

very little amendment in the ſtate of the lower extremities, when his friends ſuddenly removed him, on account of ſome diſagreement with the nurſes, and I was unable to learn whither they had conveyed him.

The hiſtory of the preceding caſe was taken by Mr. Cruttwell, now practiſing as a ſurgeon in Bath, who had been for ſeveral years a moſt induſtrious ſtudent at the hoſpital, and whoſe accurate obſervation and extenſive information induce me to place entire confidence in any ſtatement of a caſe which I receive from him. To that gentleman I am, alſo, indebted for the following particulars relating to a patient, who died ſome little time ago in the hoſpital, and whoſe body was examined. The diſſection ſerves ſtill further to elucidate my preſent ſubject.

CASE VII.

Elizabeth Griffin, twenty years of age, was admitted into St. Bartholomew's hoſpital in Auguſt 1805, on account of an inability to move her lower limbs; which was ſuppoſed

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to originate from a diſeaſe of the ſpine. On examination, however, there were no appearances, which indicated caries of the vertebræ. Her voice was, at times, conſiderably affected: and ſhe was ſubject to occaſional attacks reſembling, in ſome degree, epileptic paroxyſms. The affection of the limbs was liable to conſiderable variations. At times, as ſhe aſſured me, ſhe could walk acroſs the ward with very little difficulty; at others, ſhe could not even ſtand without aſſiſtance. Her tongue was extremely, and, I believe, conſtantly white; her pulſe natural. Her bowels were, generally, coſtive, and it was neceſſary to employ active medicines in order to procure ſtools, which were always of a dark colour. A ſlight temporary diarrhœa ſometimes happened, and ſhe invariably remarked, that the eaſe or difficulty with which ſhe could walk, and the pain in her head with which ſhe was troubled, were in exact conformity to the ſtate of the bowels, all the ſymptoms being relieved by the diarrhœa, and returning as the bowels became again coſtive. There was an appearance of irritability and languor in the eye, which I have before obſerved in theſe

caſes,

caſes, and the pupils were generally much dilated. After the patient had continued in the hoſpital about ſeven weeks, ſhe was attacked with fever, and died. To this brief account of the ſymptoms, I now ſubjoin the diſſection.

No diſeaſed appearances were obſerved in the brain, though it was examined with the moſt particular attention: neither was there any diſeaſe of the vertebræ. No diſeaſe, in ſhort, was obſerved except in the abdominal viſcera. The chief morbid appearance, in them, conſiſted in an ulcerated ſtate of the villous coat of the ilium near to its termination in the cæcum. The ulcers were numerous, and ſituated where the mucous glands are chiefly found. The internal coat of the large inteſtines, alſo, appeared inflamed.

The liver was healthy in its ſtructure. In the gall bladder about one ounce and a half of a light green ſerous fluid was found, which had not in the leaſt degree the ſoapy, or mucaginous feel of bile.

Caſes,

Caſes, like thoſe which have been related, are not, if I may judge from my own experience, at all uncommon. They ſufficiently prove, in my opinion, that local nervous diſorders and muſcular debility may ariſe from a general diſorder of the health, in which the digeſtive organs are chiefly affected. This diſorder, as has been ſtated in the preliminary obſervations, may, ſometimes, be the cauſe, and ſometimes the effect, of the nervous affection. In either caſe, however, its correction is of high importance in the medical treatment of the diſeaſe. In the fifth and ſixth caſes, a diſorder of the digeſtive organs muſt, I think, be allowed to be the cauſe of the nervous affection, from the ſudden and complete ceſſation of the latter, when the cure of the former was accompliſhed. Deciſive inſtances like theſe are particularly valuable; they ſhew what great nervous diſorder may be produced by that of the digeſtive organs, and conſequently how much the latter diſorder is likely to aggravate the former, when it occurs even ſecondarily as its effect. I have ſeen a conſiderable number of ſuch caſes, which I cannot relate with

preciſion, becauſe I had not ſufficient opportunities of obſerving the patients, to enable me to note the progreſs of the diſeaſe with accuracy.

Of theſe I can only obſerve, in general terms, that I have ſeen ſeveral inſtances of pain, imbecillity, and waſting of the muſcles in one of the lower extremities, which were conſidered as the effect of diſeaſe about the hip joint; yet the event proved that there was no organic affection of that part. The complaint was connected with that ſtate of conſtitution which I have deſcribed, and was amended as the health in general improved. I have alſo ſeen ſeveral inſtances of waſting of the muſcles of one of the upper extremities in children; ſo much indeed were the muſcles ſhrunk, that the bones and joints could be as diſtinctly examined as in a ſkeleton. The local affection in theſe caſes came on ſuddenly. I lately ſaw a little boy, who had an attack of this kind in his left arm ſeveral years ago, and on whoſe caſe I was at that time conſulted. The bowels had been violently diſordered previous to the paralytic

affection, and were, at the time I ſaw him, in an extremely unhealthy ſtate. I recommended that the chief attention ſhould be paid to correct the diſorder of theſe organs, and that the arm ſhould be ſupported by a ſling. The limb gradually recovered, and though it is not at preſent quite ſo large and ſtrong as the other, yet the difference is ſo ſlight, that it would not attract the attention of a common obſerver. About ſix months ago I ſaw a little boy in very ſimilar circumſtances, and in his caſe, the arm quickly recovered its powers of motion, as the ſtate of the digeſtive organs became healthy.

I have alſo ſeen caſes in children, in whom, after ſome general diſorder of the health, accompanied by derangement of the ſtomach and bowels, an affection of the muſcles of the extremities has taken place, like that which produces the varus and valgus; I mean a predominance of the actions of ſome muſcles over others, producing diſtortion of the limb. I have ſeen this happen ſometimes in one, ſometimes in both the

lower extremities. I have alſo ſeen the arm ſimilarly affected.

That the local ſymptoms in theſe caſes, as well as in thoſe which have been more fully detailed, ariſe from a nervous affection of the brain, and not from any cauſe acting locally on the nerves of the affected part, will, I believe, on due conſideration be granted. I ſuſpect however that ſome perſons may heſitate to admit ſuch an opinion, from the belief that diſorder of the brain muſt operate generally, and not partially, on the nervous ſyſtem. Perhaps the contemplation of the conſequences of ſlight apoplectic effuſions in the brain, may aſſiſt us in forming juſt notions on this ſubject. Such ſlight effuſions of blood, occurring in various parts of the brain, have been known to paralyſe one leg or one arm, or the muſcles of the tongue, or of one half of the face, without affecting the reſt of the nervous or muſcular ſyſtem.

Another opinion which I wiſh to be conſidered is, whether, when there is conſiderable and continued paralyſis, there muſt ne-

ceſſarily exiſt ſome preſſure or organic diſeaſe in the brain. That this exiſts in many inſtances is undoubted; but the number of caſes in which the paralytic affection is merely nervous, and independant of viſible diſeaſe, is in my opinion very conſiderable. The inſtances which have been related warrant this concluſion, and ſhew ſuch caſes to be more frequent than is generally ſuppoſed. When there is organic diſeaſe of the brain, the caſe is very hopeleſs; and probably no conſiderable alleviation of the ſymptoms will take place, by that attention to the ſtate of the digeſtive organs which I have recommended. In dubious caſes, and ſuch, on the firſt examination of them, the majority of theſe inſtances will probably be, it ſeems right to try the effect of correcting diſorder of the digeſtive organs, with a view to alleviate nervous irritation, before we proceed to thoſe ſeverer methods, which the belief of the exiſtence of organic or vaſcular diſeaſe in the brain would induce us to inſtitute. For if blood-letting and counter irritation be employed, in order to diminiſh vaſcular action; or if mercury be employed to ſome

extent in order to induce the abſorption of depoſited ſubſtance; theſe meaſures muſt aggravate that diſorder of the general health, upon which, in many inſtances, the nervous affection depends.

My object, in the recital of the foregoing caſes, is to point out a cauſe of paralyſis in particular muſcles, which from its locality would, I ſuſpect, be generally attributed to ſome local diſorder of the nerves of the affected part, and therefore be treated erroneouſly. If my opinion of the nature of theſe caſes be correct, they can only be ſucceſsfully treated by means which operate upon the conſtitution in general. I have particularly recommended that our efforts ſhould be directed to correct any errors that may exiſt in the functions of the primæ viæ, for reaſons that have been ſtated in the preliminary obſervations. Of the efficacy of ſuch endeavours I have ſeen many more inſtances than I have brought forward; indeed the propriety of ſuch attempts ſeems ſo obvious, that I doubt not but they will be made, and the effect of them will, by that means, be generally demonſtrated.

ſtrated. It is right however to mention, that in ſome caſes to which I have attended, I have been foiled in my endeavours to correct, by the ſimple meaſures which I have related in the introductory remarks, the diſorders of the digeſtive organs; probably becauſe their derangement depended on ſome eſtabliſhed diſeaſe in the brain.

In other caſes, when the functions of the digeſtive organs had been partially reſtored, the nervous and muſcular affections were mitigated but not cured. I have alſo met with one inſtance, in which the bowels became moderately correct in their functions, without any evident amendment in the ſtate of the limbs; and I have known two inſtances of perſons, who were ſuddenly ſeized with paralyſis of the lower extremities, apparently dependant on general nervous diſorder, in which the digeſtive organs ſcarcely ſeemed affected.

In ſeveral of the caſes which I have related, there were nervous pains in the affected limbs. That this ſymptom may ariſe from general

nervous diſorder ſeems to me very probable; at leaſt, I can affirm, that I have known ſuch pains cured by correcting the ſtate of the digeſtive organs. In the caſes of tic douloureux, which have fallen under my obſervation, theſe parts have been greatly deranged; and I have cured patients of ſuch complaints, by correcting this diſturbance.

I wiſh finally to excite the attention of Surgeons to the ſtate of the bowels in tetanus. The occurrence of this diſorder occaſionally, when the wound which produced it is healing, ſeems to indicate that the effects which have been produced by its irritation, continue. It has been, I think, fully ſhewn, that local irritation may diſorder the digeſtive organs; which diſorder continuing, and aggravating the affection of ſenſorium, may poſſibly lead to the production of tetanus, at a time when the wound is no longer irritable. In four caſes of tetanus, in which I had an opportunity of inquiring into the ſtate of the bowels, the evacuations from them were not like fæces. I wiſh to propoſe, in inveſtigating the cauſe of tetanus, as a queſtion,

tion, What is the ſtate of the bowels between the infliction of the injury and the occurrence of that dreadful malady *?

* Such caſes as I have related, with others that it would be foreign to my preſent purpoſe to mention, haveimpreſſed the opinion on my mind, that diſorders of the digeſtive organs may originally cauſe, or may ſecondarily aggravate, a nervous diſorder; and produce, as has been "mentioned, in the nervous ſyſtem, a diminution of the functions of the brain; or a ſtate of excitation cauſing delirium, partial nervous inactivity, and inſenſibility; or the oppoſite ſtate of irritation and pain: in the muſcular ſyſtem, weakneſs, tremors, and palſy; or the contrary affections of ſpaſms and convulſions." Could theſe circumſtances be proved, it would be ſcarcely neceſſary to add, that thoſe painful affections of parts, to which perhaps ſome prediſpoſition exiſts, may be excited in a ſimilar manner: ſuch as gout and rheumatiſm. Indeed rheumatic pains are very uſually concomitant upon that ſtate of conſtitution, which exiſted in the patients, whoſe caſes I am relating.

CASES.

CASES.

SECTION II.

On the Effects of Diſorders of the digeſtive Organs attending Injuries of the Head.

I SHALL next ſpeak of thoſe caſes, in which local diſorders of the head, produced by blows, are kept up and aggravated by affections of the digeſtive organs. After what has been obſerved reſpecting the reciprocal influence of the diſeaſes of the brain, and of the chylopoietic viſcera, it will readily be admitted, that an injury of the former may diſturb the functions of the latter. Thus, concuſſion of the brain occaſions vomiting as one of its immediate conſequences, and will alſo be found to produce almoſt conſtantly, at a more remote period, that diſturbance of the digeſtive organs, which I have deſcribed in this paper. If the diſturbance be only moderate in degree, but continued, it will often re-act upon the head, ſo as to occaſion

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an irritable ſtate of the injured parts, and impede their recovery.

In many caſes of blows upon the head, a ſlow inflammatory affection continues in the parts chiefly injured, and ultimately produces deſtructive diſeaſes. The bone ſometimes becomes diſeaſed, or an exoſtoſis grows from its internal table; the dura mater becomes thickened, or matter ſlowly collects on its ſurface. Such local diſorders produce others of a more general nature, and deſtroy the patient. Theſe occurrences are however, in my opinion, rare in compariſon with the caſes firſt deſcribed; in which a painful ſtate of the injured parts is kept up by means of diſorder exiſting in the digeſtive organs. The neceſſity for an accurate diſcrimination between theſe diſorders, muſt ſtrike us on the moſt ſuperficial view of the ſubject; for the lowering treatment, which is neceſſary in the firſt and rarer caſe, would be detrimental in the ſecond and more frequent ones. By attending to the ſtate of the digeſtive organs in theſe dubious caſes, we may be enabled to form a probable opinion of the nature of the

local

local complaint; for, if there be nothing wrong in the general health to excite or maintain it, we may reaſonably conclude that it was merely local; on the other hand, the inefficacy of evacuations in curing the local diſeaſe would naturally ſuggeſt the opinion, that it proceeds from irritation, and is dependant on a diſorder of the health in general. It ſhould be further obſerved, that when the local diſeaſe is of an inflammatory nature, and likely to induce morbid alterations in the ſtructure of the affected parts, ſtill it may be maintained and aggravated by diſorder of the digeſtive organs. I have very frequently ſeen patients ſuffer ſo ſeverely as to warrant a ſuſpicion, that local diſeaſe of the moſt formidable nature exiſted; in theſe the uſual methods of treatment were ineffectual; and they recovered ſuddenly or ſlowly, in proportion as the ſtate of the digeſtive organs was corrected. I ſhall relate ſome examples of the diſeaſe under conſideration, which will enable the reader to identify the caſe, when it occurs in practice.

CASE

CASE VIII.

A young gentleman, about ten years of age, fell out of a window, ſix feet high, and ſtruck the back part of his head againſt ſome ſtones. He was ſtunned by the blow, but perfectly recovered from the effects of the accident by bleeding, purging, and a low diet. He caught the ſcarlet-fever about ſix weeks afterwards; and recovered from that alſo. But, whilſt he was convaleſcent, the pains returned in that part of the head which had been ſtruck, with ſo much violence, as to induce the belief that ſome ſerious local miſchief would enſue. After they had continued without abatement for a few days, I was deſired to ſee him. He was lying in bed, and could ſcarcely be prevailed on to lift his head from the pillow. The integuments of the occiput were ſo tender, that he would hardly allow me to examine the part; I aſcertained, however, that there was no fluid under the ſcalp, nor any inequality in the bone. He dozed a good deal, and lay in a comatoſe ſtate, but was occaſionally reſtleſs.

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His pulſe was very frequent, his ſkin hot and dry, and his tongue covered with a thick yellow fur. He breathed almoſt without moving the diaphragm, and complained much if the epigaſtric region was compreſſed. He loathed food; his bowels were coſtive, and his ſtools of a blackiſh colour. He was ordered to take ſmall doſes of calomel at night, and draughts with rhubarb and kali vitriolatum in the morning. The tongue ſoon became clean, and the ſtools natural; his appetite and ſpirits returned, and he no longer complained of any uneaſineſs in the head.

This caſe preſents us with a ſtriking example of what I believe to be a common occurrence; I mean, a diſordered ſtate of the digeſtive organs taking place ſubſequently to a conſiderable febrile affection. Indeed, when we reflect in how weak and irritable a ſtate the brain muſt be left upon the ſubſidence of ſuch a diſorder, and how much the chylopoietic viſcera muſt ſuffer from the impaired and diſordered energy of the brain, we might naturally expect ſuch a derangement of the functions of the digeſtive organs to enſue.

enſue. When ſuch diſorder happens in this manner, it frequently produces many local diſeaſes, to which the conſtitution may perhaps be prediſpoſed; a circumſtance I ſhall ſpeak of in a future part of this paper. In the preſent caſe, it brought on a painful ſtate of parts recently injured, with a conſiderable degree of fever. That the morbid ſtate of the ſtomach and bowels was the cauſe of both is fairly to be inferred from their ceaſing ſo immediately, when the diſorder of the digeſtive organs was corrected. A caſe of this kind, preſenting an example of ſudden recovery, is particularly valuable, becauſe it clearly demonſtrates the cauſe and the effect in ſuch diſeaſes. The cauſe can indeed be ſeldom ſo ſuddenly removed; and the gradual ceſſation of it under any plan of treatment leaves room for a variety of conjectures, as to the mode of cure or of recovery from thoſe diſorders which I have conſidered as effects. I could relate many caſes of ſimilar but leſs ſevere ſymptoms produced by the ſame cauſe, which gradually got well, in proportion as the diſorders of the digeſtive organs were corrected. As it does not, however, appear to me neceſ-

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ſary to accumulate inſtances to prove ſo obvious a fact, I ſhall content myſelf with adducing two more caſes, to exhibit ſuch effects in different points of view.

CASE IX.

A lady fell down in froſty weather, in conſequence of her feet ſlipping from under her, and the occiput ſtruck againſt a ſmooth ſtone pavement. She was ſtunned by the fall, but ſoon recovered; nor had ſhe for ſome weeks the ſevere ſymptoms, which appeared in the ſequel. This circumſtance ſhews that there was nothing produced by the blow that neceſſarily cauſed the ſubſequent ſymptoms; which muſt therefore be attributed to inflammation or irritation taking place afterwards. When ſome weeks had elapſed from the time of the accident, the parts which had been ſtruck became extremely painful; and the pain extended forwards over the ſcalp to the right eye, the ſight of which became imperfect. The integuments upon which the blow had been received were extremely tender, and the patient became faint when they were examined even ſlightly. Theſe circumſtances

cumſtances naturally induced a belief that ſome diſeaſe was taking place; and bleeding and purging were employed to prevent its progreſs. The ſymptoms were mitigated for a time by theſe means, but they quickly returned with as much ſeverity as before. After three months the patient came to London, fully perſuaded that nothing but an operation would be of permanent benefit. When I firſt ſaw her, ſhe tottered in moving from one chair to another, and replied to queſtions with heſitation and effort. Her eyeſight was ſo much affected, that ſhe could not read; and ſhe entertained an apprehenſion that ſhe ſhould loſe her ſenſes. Her tongue was but ſlightly furred; her bowels were habitually coſtive, and the ſtools dark coloured. It was evident where the injury had been received; for the aponeuroſis had been ſeparated from the pericranium by an effuſion of blood; and, though this blood had been abſorbed, the detachment of the ſcalp was diſtinguiſhable by the touch. No inequality was perceptible in the ſurface of the bone. When I mentioned my ſuſpicion that theſe ſymptoms were rather the effect

of irritability of conſtitution, dependent on the ſtate of the ſtomach and bowels, than of local miſchief, ſhe gave not the leaſt credit to the opinion; but ſaid ſhe was perſuaded that the bone was ſtarred, and that three fiſſures extended in different directions. I ordered her to take five grains of the pilul. hydrarg. every ſecond night, and a draught twice a day, containing one ounce of the compound infuſion of gentian, two drams of the infuſion of ſenna, and one dram of the compound tincture of cardamoms. Theſe medicines produced a conſiderable purgative effect. On the ſecond day there was but little pain in the head; the patient walked about the room very ſteadily, and had read a newſpaper in the morning. When I aſked her opinion of this ſurpriſing alteration, ſhe imputed it to the evacuations which had taken place; but ſhe was ſtill perſuaded that the bone was injured, and ſtill apprehenſive that, without ſome operation, ſhe ſhould ultimately loſe her ſenſes. The medicines were continued in ſuch quantity as to procure only one alvine evacuation daily. A fortnight elapſed under this plan of treatment, during

which the ſtools became nearly of a natural colour, and the patient's health was conſiderably amended. There were times when no uneaſineſs was felt in the head; and, during ſome nights, the pain was ſo trivial as to give but little interruption to her ſleep. It was, however, occaſionally diſturbed by pains, which were, in her opinion, as intenſe as at any former period of the complaint. Her pulſe was good, and her muſcular ſtrength greatly improved. The occurrence of the pain in paroxyſms ſtrongly impreſſed me with the belief that it was nervous, rather than depending upon local diſeaſe. Under theſe circumſtances all ideas of an operation were diſmiſſed from my mind, but it was far otherwiſe with reſpect to the patient. Being obliged to return into the country, ſhe conſidered the poſſibility of a relapſe with horror; and was ſo convinced that the bone had been injured, that ſhe earneſtly requeſted it might be examined, were it merely to aſcertain what was the fact. I ſaw no objection to this examination, but thought, on the contrary, that advantage might poſſibly ariſe from an inciſion, which would looſen the tenſion of the ſcalp,

and produce a diſcharge that might relieve the irritation of the part. I accordingly made an inciſion of a ſemicircular form, extending farther back than the part which had been ſtruck, and turned up a portion of the ſcalp, ſo as to ſee the bone, covered by its pericranium, to the extent of a crown piece. The bone was uninjured, and, together with the pericranium, appeared perfectly natural. The ſcalp being replaced, the wound was dreſſed ſuperficially, without any attempt to favour the union of the parts. If they united under theſe circumſtances, there would be an additional reaſon for believing, that neither the bone nor the ſubjacent parts were diſeaſed. The pain was as ſevere for the two firſt days and nights after this examination as it had been at any former period; it abated when the wound began to diſcharge, and had entirely ceaſed on the fifth day. This ſtate of tranquillity continued as long as the patient remained in town, which was about three weeks after the diviſion of the ſcalp. The wound at that time had nearly healed. She has ſince had occaſional returns of pain in the head when her general health has been diſordered,

dered, but never to that degree as to induce a ſuſpicion that any local vaſcular diſeaſe exiſted.

To exhibit the effects of the re-action of diſorders of the digeſtive organs upon thoſe of the head in another point of view, I ſubjoin the following caſe.

CASE X.

May 29, 1805, a labouring man, aged forty-five, fell from a conſiderable height upon his head, and was immediately brought to St. Bartholomew's Hoſpital. No fracture of the ſkull could be diſcerned: and the patient ſeemed to labour under the effects of violent concuſſion of the brain. By veneſection, and other antiphlogiſtic means, he ſoon recovered his ſenſes. Every thing went on very favourably for three days, when he was attacked with ſhivering, nauſea, pain in the head, impatience of light, and other ſymptoms, which uſually are conſidered as denoting inflammation of the membranes of the brain. He was conſequently bled; and had a bliſter applied on the head. He was ſud-

denly ſeized in the evening with a more excruciating pain in the head, which, after laſting half an hour, was ſucceeded by convulſions, ſo violent that three men could ſcarcely hold him. When the fit abated, he expreſſed himſelf much relieved, and ſaid that he was eaſier than before its acceſſion. Some calomel and rhubarb were given to obviate a coſtive ſtate of his bowels. On the next morning (June 2d) he had a return of the pain and convulſions; and the ſymptoms were ſo violent, that he was bled four times in the courſe of the day. This treatment, however, had no effect in diminiſhing the pain and other ſymptoms, and another fit of convulſions took place in the evening. The purgative operated on the ſucceeding night, and brought away a large quantity of highly offenſive feculent matter of a light greeniſh-yellow colour. On the 3d of June his breath was extremely offenſive; his ſkin hot and dry; his pulſe quick; his tongue thickly furred; and he had great tenderneſs in the epigaſtric region, and right hypochondrium. He was ordered to take two grains of calomel immediately,

and

and a ſaline medicine at intervals; this produced two motions in the courſe of the day. By purſuing this plan for a few days, the ſtate of his bowels were rendered more regular, and the diſcharges acquired a healthy colour; in proportion as this was effected, the tenderneſs of the abdomen was removed, and the tongue became clean. He had no return of convulſions, the pain and other ſymptoms ſubſided, and in a ſhort time, when the digeſtive organs had been reſtored to a natural ſtate, he went out of the Hoſpital perfectly well.

Caſes of this deſcription have been noted from the earlieſt ages. Many paſſages in the works of Galen ſhew that he was well acquainted with the circumſtances that have been ſtated in this ſection. Bertrandi * has related inſtances of abſceſſes taking place in the liver conſequent to injuries of the head. Andouillé † relates additional caſes, and makes further obſervations on the ſame

* Mémoires de l'Academie de Chirurgie, tom. iii. p. 484.
† Ibid. p. 506.

ſubject. Of late, Richter * has delivered ſimilar opinions, and has directed the practice which ſhould be purſued, when the head is diſordered by the re-action of affections of the digeſtive organs. Still however theſe circumſtances ſeem to me to be ſtated rather as occaſional, than as occurrences which are common and naturally to be expected; and I therefore think myſelf warranted in ſuppoſing, that they have not made a ſufficient impreſſion on the minds of Surgeons, in this country at leaſt †.

I beg leave, in the concluſion of this ſection, to repeat what was ſaid in the former one, *viz.* that I conſider the diſeaſe as depending on nervous irritation in the parts affected, which is either cauſed, maintained, or aggravated by diſorders of the digeſtive organs. Yet as the local diſeaſe muſt be regarded as chiefly nervous, it might, in ſome rare inſtances, exiſt independently of any manifeſt diſorder of thoſe organs. I may further add, that much nervous irritation in any

* Chirurg. Biblioth. b. viii. p. 538.

† In Doctor Cheſton's Pathological Obſervations, however, caſes of this deſcription are noticed.

part

part generally excites vaſcular action. It becomes therefore highly important to attend to the nature and cure of ſuch diſorder, as it might ultimately lead to the production of organic diſeaſe, which would deſtroy the patient.

CASES.

CASES.

SECTION III.

On undefined and undenominated Diſeaſes ariſing from Diſorder of the Conſtitution.

THE next claſs of caſes, to which I ſhall call the reader's attention, is that of unhealthy indurations, abſceſſes, and ſores. Sometimes but one local diſeaſe of this deſcription exiſts, but in general they break out in ſucceſſion in different parts of the body. The circumſtance of their ſucceſſive formation is, I think, a proof that they depend upon ſome error in the health in general; and I have accordingly obſerved that they are ſeldom, if ever, unattended with diſorder of the digeſtive organs. The imperfect hiſtory, which the patients generally give of their previous ſtate of health, will not enable us to determine with certainty, that the diſorder of the bowels was the cauſe of their ill health and ſubſequent local diſeaſes; but I can confidently affirm, that thoſe diſeaſes in general become

come tractable, in proportion as the diſorder of the viſcera is corrected; and that frequently no new local ſymptoms occur, after ſome attention has been paid to the ſtate of the digeſtive organs. The diſeaſes, to which I allude, have not been deſcribed in books of Surgery; and indeed it is ſcarcely poſſible to delineate with preciſion their various appearances. It would be quite impracticable to deſcribe all the diſeaſes, which make the ſubject of the preſent ſection; namely, unhealthy indurations, abſceſſes, and ſores. They may be compared, not improperly, in variety and number, with the infinitely diverſified combinations and ſhades of colour. Yet a brief and general deſcription of them will aſſiſt to recall them to the remembrance of the experienced ſurgeon; and to enable the inexperienced practitioner to recognize them, when they occur.

Some of theſe affections are quite ſuperficial, occupying merely the ſkin. The firſt that I ſhall deſcribe is, I believe, well known to ſurgeons, as a diſeaſe, which is frequently, though not conſtantly, cured by giving mercury

cury to ſuch an extent as ſlightly to affect the conſtitution. A ſmall induration or tubercle takes place in the ſkin, and this is followed by the ſucceſſive formation of others at ſmall diſtances from the original one. The ſkin between theſe tubercles becomes thickened. Chord-like ſubſtances, which are probably indurated abſorbents, may ſometimes be felt, extended along the thickened ſkin. The tubercles ulcerate, and form foul ulcers, which heal ſlowly and break out again.

Another ſpecies of ſuperficial or cutaneous ulcer begins generally in one point, and extends in every direction. The chaſm of the ulcer is formed either by a very ſudden ulceration, or by ſloughing. A ſore is left, which firſt ſecretes a ſanious, and then an ichorous fluid. Granulations afterwards ariſe, and the ſore heals. The granulations are however indurated and unſound; and when the patient ſuppoſes that the ſore is cured, it is ſuddenly reproduced by a proceſs ſimilar to that by which it was originally occaſioned. After ſome time the ulcer again heals, and again breaks out. Whilſt theſe proceſſes are going

on

on in the middle, the ſore enlarges in its circumference; the edges, which are thickened, become at times highly inflamed, and either ulcerate or ſlough. The diſpoſition to diſeaſe is aggravated by fits, and there are intervals when it is apparently tranquil. When this ſore has enlarged to a conſiderable extent, in the manner already deſcribed, the central parts, which have healed unſoundly, break out into ſeparate ulcers; and thus preſent an appearance of ſeveral ſores, connected with each other by indurated ſkin or newly-formed ſubſtance.

I ſhall briefly mention ſome of the principal circumſtances relating to the laſt ſore of this deſcription, which came under my care. The patient, who had been ill for more than two years, and had taken a great deal of mercury, came from the country in very bad health, and with his digeſtive organs much diſordered. The ſore was ſo painful, particularly at night, that he was in the habit of taking large doſes of opium to procure reſt. It occupied the back of the hand and wriſt. He had had ſomewhat ſimilar ſores on his head

head and face; but they were nearly healed, though diſpoſed to ulcerate again. By that attention to the ſtate of the bowels which I have deſcribed, and by dreſſing the ſore with an aqueous ſolution of opium, the greater part of it was healed in the ſpace of three weeks; and the remainder was ſo much amended, and ſo little painful, that he had left off his opium ſhortly after the commencement of this treatment. As the patient's circumſtances made it inconvenient to him to remain in town, he went into the country, where the ſore broke out again. He then applied to a perſon who ſold a famous diet-drink; and before he had taken twelve bottles, the ſore was perfectly healed, and has not ſince broke out. The diet-drink, he ſays, had no ſenſible operation; but his bowels became regular and comfortable, and his appetite amended by taking it.

Another variety of theſe ſores originates in a more deeply ſeated diſeaſe. The cellular ſubſtance under the ſkin becomes thickened, and an unhealthy abſceſs follows; after the burſting of which, a foul ſore is formed. In con-

conſequence of this proceſs, the faſcia of the limb is ſometimes expoſed to view, and ſeems to have ſloughed: when the ſlough has ſeparated, the diſeaſe may get well ſlowly. In many caſes, however, there is no expoſure, nor ſeparation of the faſcia. Sometimes the ſore does not extend beyond the limits of the original induration, but heals ſlowly; while other diſeaſes of the ſame kind occur in ſucceſſion in various parts of the body. In other caſes, the ulceration of the original ſore ſpreads along the contiguous parts, whilſt thoſe which were firſt affected get well; and thus the ſore aſſumes an herpetic character. In many caſes the ulceration extends from the whole circumference of the ſore, and thus the ſcar and ulcerated edges have a circular or oval form; in others, the diſeaſe is propagated in particular directions, ſo that the ulcerated ſurface preſents the moſt irregular and ſingular figures.

Theſe diſeaſes ſometimes are ſmall in extent in the beginning, but enlarge conſiderably before the ſkin gives way; and, when this happens, it proves a kind of criſis to the diſ-

diſeaſe, which afterwards heals ſlowly. In theſe caſes it becomes the object of ſurgery to bring the diſeaſe to a criſis, whilſt it is yet of ſmall extent; which may be effected by producing ulceration of the ſkin by means of cauſtic.

Some of theſe ſores are formed from diſeaſes beginning in the abſorbent glands; in which caſe the gland, having firſt been indurated, ſuppurates and burſts, and ulceration enſues. When this circumſtance has taken place, in an abſorbent gland of the neck for inſtance, another ulcer may form, in the manner above ſtated, in the ſkin and ſubjacent parts, without any gland being involved in it. A third ulcer, having a diſeaſed gland for its cauſe, may form in the vicinity; and thus the diſeaſe proceeds without any regularity.

I once thought it a neceſſary but moſt difficult taſk for a ſurgeon to remark the varieties of theſe diſeaſes, in order to underſtand his profeſſion, and contribute to its improvement. But, ſince I have found that theſe diſeaſes indicate ſome diſorder of the health

in general, the correction of which is the great object in their cure and prevention, I have perceived that there is less necessity for undertaking this most arduous investigation; which, indeed, could never be accomplished without very extensive opportunities and indefatigable diligence.

It will be found in the majority of these peculiar diseases, that the patient had been indisposed for some time before the occurrence of the complaint, and, that afterwards the health had become more evidently deranged. The digestive organs are disordered. The tongue is furred at the back part, chiefly in the morning; and the biliary secretion is deficient or depraved. My attention has been directed to the correction of this disorder; and the most beneficial effects have resulted from this attention. The sores have healed readily in some instances; and, in those cases where many had previously formed in succession, no new disease has in general taken place. In some few instances, new sores have formed after the medical treatment of the disorder had commenced, and even after it had been

for ſome time continued. This probably ariſes from the difficulty, which is experienced, in correcting an habitual and long continued conſtitutional diſorder. In ſome ſtill rarer caſes I have found ſimilar but much milder diſeaſes ariſe, after the diſorder of the digeſtive organs had been in a great degree corrected.

Whilſt I am writing this, there are four patients, whom I have attended in St. Bartholomew's hoſpital, with theſe diſeaſes; which I mention, to ſhew the younger part of the profeſſion how frequent they are. The health of theſe patients has been ſurpriſingly amended in a very ſhort period, by employing the means which I have deſcribed; and the ſores have healed rapidly, although nothing but ſimple dreſſings have been applied to them.

It is not meant by theſe obſervations to depreciate the utility of topical applications to unhealthy ulcers, but merely to ſhew how much they depend on the ſtate of the health in general; for ſome of them, which have remained uncorrected by a great variety of local

applications, will get well under ſimple dreſſings, when the ſtate of the conſtitution is amended. It is not, however, to be expected that this will generally happen; for local diſeaſed action having been excited, becomes eſtabliſhed, and may continue, independently of the cauſe which produced them. Topical remedies will, under theſe circumſtances, be employed with the greateſt advantage. Again, topical applications are of the higheſt utility in general practice, becauſe an irritable ſore affects the whole conſtitution, and aggravates and maintains that diſorder by which it might have been originally cauſed. The diſorder of the digeſtive organs cannot in many inſtances be corrected, till the fretful ſtate of the local diſeaſe is diminiſhed. I may further mention, with relation to this ſubject, that I have ſeen patients, who ſcarcely ever ſlept from the pain of the local diſeaſe, whoſe ſtomachs were greatly diſordered, and who had a diſtreſſing purging, which could only be controlled by opium, ſleep without interruption during the night, regain their appetite, and have their bowels become tranquil and regular, when, after various trials,

a dreſſing has at laſt been applied, which quieted the irritable ſtate of the ſore. It is right however to mention, that the effects of ſuch an application are not, in general, permanent; but after a time the ſore becomes again fretful, and requires ſome new dreſſing to ſoothe or control its irritability.

I have ſeen ſome caſes of ſuch diſeaſed ſores as I have deſcribed, in conſultation with other ſurgeons, who have become convinced that my opinions are well founded. Others have occurred, even in the perſons of medical men, whoſe feelings co-operated to render their conviction more ſtrong.

Having thus, from general obſervation, acquired the opinion that the peculiarities of local diſeaſe depend chiefly on the ſtate of the conſtitution, I ſhall relate ſome caſes, which were treated in conformity with the principles which ſuch an opinion would naturally ſuggeſt. I muſt, however, previouſly caution the reader againſt inferring, that I attribute all local diſeaſes to ſome general

error

error in the ſtate of the health. I have ſeen local diſeaſes, which could not be deduced from any general indiſpoſition, nor corrected by remedies which act ſimply on the conſtitution at large. I wiſh to guard againſt the ſuſpicion of being inclined to make general aſſertions; while I avow at the ſame time, that my obſervations induce me believe, that the peculiarities of local diſeaſe generally depend upon conſtitutional cauſes. Reaſon alſo ſuggeſts the ſame opinion; for if ſores of the ſame character break out in ſucceſſion in different parts of the body, can we doubt that they ariſe from the ſtate of the health in general?

There appears to me a combination of nervous irritability and weakneſs, and to ſuch a combination I am inclined to attribute the peculiarities of theſe variable and unclaſſed local diſeaſes. Perhaps I may explain my meaning further, by adverting to what happens not unfrequently in caſes of venereal and other buboes. The part and the conſtitution have been both weakened by the diſeaſe that has occurred; they have been further

debilitated by the mercury employed for its correction. The diſeaſe ſubſides, but a new diſeaſe and action commences; a trivial wound frets out into a phagedænic ſore, which is very difficult of cure. The ſores, in different caſes, are nearly as various in appearance, as thoſe of which I have been ſpeaking. To what are we to attribute theſe diſſimilar, perplexing, peculiar ſores, if not to irritation occurring in weak and irritable parts? As the peculiar diſeaſed actions of theſe ſores originate chiefly from the weakneſs and irritability of the parts, induced by the previous diſorder which they have undergone; ſo in their advanced ſtages they frequently preſent the beſt inſtance, that can perhaps be adduced, of a peculiar local diſeaſe exiſting independently of conſtitutional diſorder. It is true they affect the health in general; but it may, by attention, be kept in a moderately right ſtate, and yet the ſore remains unamended. The diſeaſed actions of theſe ſores ſometimes gradually, and ſometimes ſuddenly ceaſe; when healthy actions ſucceeding, the ſore heals. I remember a ſore of this deſcription, to which almoſt every variety of dreſſing

had

had been tried without benefit. It was very extenſive, and had burrowed in various directions beneath the ſkin. The ulceration at length became ſtationary; but after nine months the ſore ſtill remained as foul and fretful as it had been for a conſiderable time; when in the courſe of one week it perfectly cicatrized, leaving the hollows which I have deſcribed; for it had thrown out no granulations to fill theſe chaſms.

Having thus ſtated the opinions, which I have formed, relative to theſe kinds of local diſeaſes; and which have been deduced from caſes too numerous to record, of which I have preſerved no accurate accounts; I proceed to relate ſome caſes treated in conformity to theſe opinions, which will, I truſt, be ſufficient to exemplify and illuſtrate the preſent ſubject.

CASE XI.

A gentleman's ſervant, between thirty and forty years of age, was ſent to me with a bad ulcer in his cheek, ſituated between the noſe and under eye-lid. The ſurrounding parts were inflamed, ſwoln, and indurated,

ſo as to riſe fully half an inch above their natural level. The ſore was of an oval figure; meaſuring about an inch and a half in length, and half an inch in breadth and depth; indeed I could ſcarcely ſee its bottom. The ſurface was covered by adhering matter of a greeniſh hue. The cuticle round the margin was thickened, and had in ſome parts ſcaled off. The patient had been rubbing in the mercurial ointment for this complaint. He declared that he had had no chancre for many years, but had contracted a gonorrhœa about a year before his preſent diſorder. His health was much diſturbed; he had no appetite; his tongue was much furred and tremulous; his bowels alternately coſtive and lax; his fæces blackiſh. I adviſed him to take five grains of rhubarb about an hour before dinner, and five grains of the pil. hydrarg. every ſecond night, with caſtor oil or ſenna tea occaſionally, ſo as to procure a motion daily. The ſore was dreſſed with ſpermaceti cerate. I ſaw him again in three days; when he ſaid that he felt himſelf under the greateſt obligations to me. He had been entirely free from pain and diſtreſsful ſenſations, ſince he

began

began to take the medicines; although he declared, that before that time, he ſhould have been thankful to any one who would have deſtroyed him. I mention this, becauſe I have often remarked in theſe caſes, the ſurpriſingly great relief and comfort which have ariſen from a change, produced by means apparently inſignificant and inadequate. The bowels now acted regularly, and the ſtools were more copious and of a more natural colour, and to this correction of the biliary ſecretion I am inclined to impute that relief, which he ſo forcibly depicted. The ſore had diſcharged profuſely; the ſurrounding ſwelling and inflammation were much leſſened. He purſued the ſame plan of treatment for a month; during which time he recovered his appetite; his tongue became clean; his bowels regular, and the biliary ſecretion natural. The ſore had contracted into a ſmall compaſs, but without the appearance of granulations; and the ſurrounding parts were not ſwoln, though ſtill red. His health became at this time again much diſordered, in conſequence of his catching cold, from expoſure to rain. He had pain

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in the bowels, with a ſlight purging; his appetite failed; his tongue was furred; and he had a ſevere cough, attended with copious expectoration. The ſore on the cheek alſo enlarged to about one half of its former ſize: and the ſurrounding parts became tumid. I had the patient admitted into St. Bartholomew's Hoſpital, where he took the decoction of caſcarilla with ſquills. His cough became materially better in a ſhort time: the ſtate of his ſtomach and bowels alſo greatly improved. The ſore again diminiſhed in ſize. About a fortnight after his admiſſion into the hoſpital, an eruption came out over his whole body. The ſpots were of a copperiſh hue, but rather ſmaller, and more elevated, than venereal eruptions generally are*. Some of the eruptions gradually diſappeared; and, in about a fortnight, it was certain that many were entirely gone. About this time he began to complain of his throat; and an ulcer, of the ſize of a ſhilling, formed in each tonſil. The edges of theſe ſores were elevated, and

* Many perſons who ſaw the patient did not entertain a doubt but that all the ſymptoms aroſe from ſyphilis; it was their progreſs alone which evinced the contrary.

uneven,

uneven, without any appearance of granulations; the ſurface was covered with yellow adhering matter. The patient now again caught cold: he was attacked with pain in the bowels, and purging, which obliged him to get up frequently in the night, and to remain for ſome time out of bed. The cough and expectoration returned: he loſt his appetite; and he had a furred tongue. Dr. Roberts, whom I met at the hoſpital, did me the favour to preſcribe for him. In a day or two afterwards, an eryſipelatous inflammation appeared on the right ſide of his face, oppoſite to the ſituation of the ſore. The eye-lids were ſo tumid that he could not open them: the eryſipelas ſpread to the other ſide of the face; and the other eye was equally cloſed. The fever alſo ran very high, and the patient became delirious; ſo that he was obliged, for many days, to be confined by a ſtrait waiſtcoat. Theſe ſymptoms gradually abated, and he recovered, ſo as to be in better health than I had ever ſeen him. He was diſcharged in about ſix weeks, in a ſtate of convaleſcence; and attended Dr. Roberts as an out-patient. The eruption and ſore throat

had

had entirely diſappeared; the original ulcer was firmly healed; and the contiguous ſkin had become ſoft and natural, though it was ſtill diſcoloured. A year has ſince elapſed, and he has had no return of his complaints.

It is, I think, ſufficiently evident, in the preſent inſtance, that the peculiarities of the local diſeaſes had their origin in the ſtate of the conſtitution.

CASE XII.

I was conſulted, by a medical gentleman in my neighbourhood, on the caſe of a lady about forty years of age; who had been long ſubject to dyſpepſia, and ſevere head-aches. Her preſent and chief complaint had been of about three months duration. It began with weakneſs, and an apparent irregularity in the motions of the lower extremities, attended with conſiderable pains reſembling rheumatiſm, and rigidity of the calves of the legs. Theſe ſymptoms increaſing, ſhe was unable in the courſe of a month, to move about at all;

all; but was obliged to be lifted in and out of bed. At this time an induration of the muſcles of the calf of each leg had taken place. The indurated ſubſtance was about three inches in length, and between two and three in breadth. It was ſeverely painful at times, and the integuments covering it were occaſionally inflamed. There was alſo ſome pain and ſwelling in the ham. Leeches, ſedative lotions, and mercurial ointment had been applied; cicuta and tonics had been given, but without alleviating the ſymptoms. I firſt ſaw the patient about ſix weeks after ſhe had been obliged to keep her bed entirely; and the peculiarities of the preſent caſe led me at once to refer its origin to the ſtate of the health in general. The appetite and digeſtion were impaired, the tongue was much furred, and the fæces blackiſh. I merely recommended fomentations to the indurated parts, conſidering it the primary object to correct the morbid ſtate of the digeſtive organs. With this view the compound infuſion of gentian with the infuſion of ſenna and tincture of cardamoms was given, in ſuch doſes as to procure an adequate evacuation daily,

and five grains of the pil. hydrarg. were taken every ſecond night. Theſe ſimple medicines were completely ſucceſsful: after taking them a ſhort time, the diſcharges from the bowels were natural, and properly coloured with bile. The appetite returned; the tongue became clean, and the pains almoſt immediately ceaſed. No cutaneous inflammation, indicating a diſpoſition to ſuppuration, appeared again over the indurated parts, which gradually recovered their natural ſtate. In a fortnight the patient could go about with a ſtick, and in two months could walk as well as before her complaint. She has enjoyed better health, ſince this time, than for many years before *.

* The ſtate of the indurated muſcles, in this caſe, was ſuch as would lead to the belief that ſuppuration would take place in different parts of the hardneſs; indeed, I have ſeen many caſes leſs formidable in appearance terminate in that manner. Seeing how much the irritability of muſcles is diſordered by that ſtate of conſtitution which I have been deſcribing, I think it is allowable to conclude that most of the organic diſeaſes of muſcles originate from this cauſe.

CASE XIII.

A gentleman, thirty-two years of age, who had been ſubject for ſeveral years to occaſional attacks of ſevere pain in the bowels, was ſeized, about the end of Auguſt, with a violent purging, which continued for a fortnight, and was attended with fever. About a month afterwards, he felt pain in his leg at night, which gradually became continued even during the day, and obliged him to confine himſelf to bed. In the beginning of October a ſwelling was perceived near the inner ankle, which ſuppurated, and was opened on the twentieth of the ſame month. Two large tea cups full of dark brown matter were evacuated. The diſcharge continued profuſe for ſome time, and afterwards diminiſhed. Four other ſmall gatherings then took place in ſucceſſion, and, burſting, continued to diſcharge; each aperture fretting out into a foul ſore. About the beginning of February I firſt ſaw this caſe, which was conſidered as a diſeaſe of the bone. The five ſores had apertures in them leading to ſinuſes, which

which communicated with each other. A probe introduced into one of theſe, near the bottom of the tibia, could be moved upwards and downwards along the ſurface of the bone, which was not, however, denuded. From an upper ulcer the probe could be paſſed behind the bone, and under the muſcles of the calf; this indeed ſeemed to be the original ſeat of the abſceſs, from which the ſinuſes proceeded to their different outlets. The integuments were œdematous, and firm to the touch; ſo that I could not diſtinctly feel the outline of the tibia; but I thought that the bone was not altered either in form or ſize. The firmneſs with which the patient ſtood upon the limb, and the want of aching pain in the bone contributed alſo to make me believe that it was not diſeaſed, and that the whole diſorder conſiſted in an unhealthy abſceſs, the diſcharge from which iſſued from the various ſinuſes in the manner already deſcribed. I could not but attribute ſuch a diſeaſe to a general diſorder of the health, and indeed the patient's countenance and appearance indicated a conſtitution much weakened and harraſſed by illneſs. His tongue

was

was furred, and the diſcharges from the bowels were irregular, deficient in quantity, and of a blackiſh colour. With a view to the correction of theſe ſymptoms, I directed the patient to take five grains of the pil. hydrarg. every ſecond night, and the infuſion of gentian with ſenna, ſo as to procure one motion daily. But little benefit was obtained by theſe meaſures; and in about a fortnight afterwards a thickening of the integuments took place over the fibula; a conſiderable ſwelling gradually aroſe, and another abſceſs formed, which burſt in about three weeks, and diſcharged a conſiderable quantity of browniſh matter mixed with blood. During this time the limb was merely poulticed, and the patient could not leave his bed. His pain was extreme, and he had no reſt at night. The uſe of opium was neceſſary to alleviate his ſufferings, and opening medicines occaſionally to procure ſtools. He took but little nouriſhment, and his health greatly declined. The diſordered ſtate of the ſtomach and bowels was much aggravated by this local irritation. Indeed, the ſituation of my patient was now particularly perplexing. The

local diſeaſe made the general health worſe; and the aggravation of this general diſorder, which appeared to have been the cauſe of the local diſeaſe and of its continuance, proportionately increaſed the latter malady. The confinement to bed afforded an additional obſtacle to recovery; yet it was impoſſible to remove him in his preſent ſtate, on account of the pain which motion occaſioned. The leg was inſupportably painful in a dependent poſture. As change of air and exerciſe ſeemed eſſential to his recovery, I was induced to try if Mr. Baynton's excellent bandage, by ſupporting the weakened veſſels, would prevent their diſtention, and the conſequent pain. The ſores were dreſſed, after as much matter had been expreſſed from the ſinuſes as could be done without occaſioning pain. Strips of ſticking-plaiſter were applied after the manner of a many-tailed bandage; and the limb was afterwards rolled with a calico roller. The patient felt comfortable, and found his limb ſtrengthened. He was directed to wet the roller, if the parts became heated. The effect of this treatment was ſurpriſing both to the

patient

patient and myſelf. The pain, which had been conſtant before preſſure had been employed, ceaſed from the time of dreſſing till five o'clock on the following morning; but from that time it gradually increaſed till noon, when the dreſſings were renewed. The cauſe of this occurrence now became manifeſt; for, upon opening the bandage, more than a tea-cup-full of matter was diſcharged from the different ſinuſes. I dreſſed the limb as before, cutting holes for the eſcape of the matter oppoſite to two of the chief ſinuſes. I deſired the patient to put his leg to the ground, in order to aſcertain the effect of the perpendicular poſition when the veſſels were ſupported; and he experienced no inconvenience. The ſecond day paſſed, as the former, without pain; and as the matter poured into the ſinuſes readily eſcaped, he had no uneaſineſs from its detention. I recommended him to ſit up, and put his leg to the ground ſeveral times in the day, in order to accuſtom it to that poſition. After I had dreſſed it on the third morning, the patient ſtood up, and took two or three ſteps very feebly; but this was rather the effect of general weakneſs than of particular infirmity

in the diſeaſed limb. I now adviſed him to go a little way out of town in a carriage. The air and exerciſe, together with the freedom from pain, produced a very beneficial effect. He began to recover his appetite, to ſleep at night, and acquired ſo much ſtrength, that he was able in a week to go about his houſe, and to reſume his attention to buſineſs. The diſcharge from the ſinuſes was very trifling, and the ſores looked much better. The patient now undertook to dreſs his leg himſelf, and hired a lodging out of town, ſo that I only ſaw him occaſionally. His limb was ſo much amended in the courſe of a fortnight, that it cauſed no more trouble than that of daily dreſſing. But his health was not good. His countenance had the ſame expreſſion of illneſs as when I firſt ſaw him; his tongue was white and dry; his bowels coſtive; and the ſtools of an unhealthy colour. I therefore recommended him to take again the ſame medicines, which I had formerly ordered him. His health now improved; his tongue became moiſter, and leſs furred; the bowels more regular; and the fæces coloured with a more healthy bile. He continued recovering till

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the middle of April, when he began to complain of the trouble of applying the ſticking-plaiſter, and uſed the calico roller alone. I did not ſee him for three weeks, and then found him in a very deſponding ſtate. He complained of the tedioufneſs of his confinement, which had laſted more than half a year, and ſaid that he would willingly ſubmit to have the ſinuſes laid open, if that would make him well. I found his leg well, excepting two orifices near the tibia; three ulcers which formed the apertures of as many ſinuſes, had healed; the outline of the bone could be diſtinctly felt; and there was no alteration of it in form or ſize. I was unable at firſt to account for this deſpondency under ſuch favourable circumſtances; but I ſoon diſcovered that it was the effect of hypochondriaciſm. For his tongue was much furred and dry; and at the ſame time that he left off the bandage, he had alſo diſcontinued his medicines. I urged him to return to them immediately; and called on him again in ten days, when he perceived clearly the abſurdity of his late deſpondency, as well as its cauſe. He called on me on the 10th of July, with a new ſwelling

near the upper part of the tibia, which threatened to form an abſceſs, ſimilar to thoſe which had formerly taken place. I covered the limb with the bandage of ſticking-plaiſter, as at firſt. The new diſeaſe diſappeared entirely; and the old ones were ſo much benefited by the exact and equal preſſure, that the patient felt no difference between the ſound and the affected limb. The ulcers gradually healed, and his health is better than it has been for ſome years: yet ſtill there is an evident tendency to diſorder of the digeſtive organs.

CASES.

CASES.

SECTION V.

On more defined Diſeaſes, as Carbuncle and Scrofula ariſing from Diſorder of the Conſtitution.

IF, upon an extenſive and accurate examination of the ſubject, it were to appear, that many very peculiar and very diſſimilar local diſeaſes originate from a common cauſe, namely from weakneſs and irritability of the ſyſtem in general, our enquiry would be further extended, and we ſhould feel anxious to know whether ſimilar cauſes may not operate in the production of more common and more frequent local diſorders. As far as my late obſervations have enabled me to determine, that ſtate of the digeſtive organs, which I conſider as denoting conſtitutional diſorder, exiſts prior to the formation of a carbuncle; and is exacerbated during the progreſs of that diſeaſe. This opinion indeed will appear

probable, if we conſider the kind of perſons who are attacked with carbuncles, and the conſiderable derangement of health, which even a trivial local diſeaſe of this nature occaſions. I ſhall mention but one caſe in ſupport of this opinion, though I have made ſimilar remarks in ſeveral other inſtances.

CASE XIV.

I attended a gentleman, who was afflicted with carbuncles, during three ſucceſſive attacks, at the interval of about a year between each. I made an inciſion through the indurated ſkin, down to the ſubjacent ſloughy cellular ſubſtance, and thus brought the local diſeaſe to a criſis. This treatment was ſufficient in the two firſt attacks; the extenſion of the diſeaſe was prevented; the ſloughs ſeparated, and the wound healed. The patient, whoſe mode of life was intemperate, had cough; difficult reſpiration; fullneſs and tenderneſs of the parts ſituated in the epigaſtric region; unhealthy ſecretion of bile; and in ſhort, all thoſe ſymptoms which denote a very conſiderable degree of diſorder of the digeſtive

digeſtive organs: it is probable indeed that ſome organic diſeaſe of the chylopoietic viſcera exiſted. After he had recovered from the carbuncle, I told him that the moſt important diſeaſe ſtill exiſted; and urged him to be attentive to his diet, and to the directions of his medical attendants. He ſtill however continued to live intemperately, and his diſorder increaſed. He was indeed nearly dying from diſeaſed viſcera, when he was attacked with carbuncle for the third time. The diviſion of the parts produced a temporary ceſſation of the diſeaſe; but it began again to ſpread in every direction from its circumference, and he died.

It will not, I believe, be doubted, that boils are a ſlighter degree, with ſome variation, of the ſame diſeaſe, which cauſes anthrax and carbuncle; and it is almoſt unneceſſary to remark, that ſome perſons are ſubject to a ſucceſſive formation of very large and troubleſome boils from the leaſt irritation of the ſkin. I have ſeen many perſons thus affected; and there has been, in every inſtance, diſorder of the digeſtive organs, the

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correction of which has prevented the return of theſe vexatious local diſeaſes. One gentleman, who had been tormented for many years by the quick ſucceſſive formation of boils as large as eggs, has been free from them for ſome years; though he has had other diſorders, which denote ſuch a condition of the conſtitution, as it has been my object to deſcribe in this paper.

I have remarked in many inſtances that diſeaſes of the abſorbent glands, ſuch as are uſually and juſtly denominated ſcrofula, occurring in adults, have apparently originated from the diſorder which I have deſcribed. In ſeveral caſes the local diſeaſe was of long duration, and had become worſe rather than better under various plans of medical treatment; yet it amended regularly, and ſometimes even quickly, in proportion as the ſtate of the digeſtive organs was corrected. I need not detail any caſes on this occaſion, ſince every ſurgeon muſt know them familiarly. The patients are commonly ſent to the ſea-ſide, or into the country; where enlarged glands ſubſide, and thoſe which have

ſup-

ſuppurated and ulcerated heal; and the local diſeaſe recovers, in proportion as the health in general is amended.

There are caſes of ſcrofulous diſeaſes occurring ſuddenly, and in various parts of the body at the ſame time, which ſeem to originate in that ſtate of the conſtitution which is occaſioned by diſorder of the digeſtive organs. I have chiefly obſerved theſe caſes in children; and they have followed ſome violent febrile affection. In two caſes which I ſhall particularly mention, the ſmall-pox was the antecedent diſeaſe. I have already ſtated, that when the health has been conſiderably diſordered by ſome violent diſeaſe, the digeſtive organs may become ſubſequently affected; and that this diſorder proves a cauſe of many ſecondary diſeaſes.

CASE XV.

A child of two years old had the ſmall-pox, from which he did not ſeem to recover, but, on the contrary, fell into a very bad ſtate of health. The abſorbent glands on the right

ſide

ſide of the neck became enlarged in ſucceſſion, ſo as to form altogether a very conſiderable tumour, which extended down to the collar bone. The axillary glands then became affected in the ſame manner; the ſwelling was unuſually great, and ſeemed to extend under the pectoral muſcle, elevating it, and forming by this means a continuation of tumour with the glands of the neck. Theſe ſwellings had partially ſuppurated, and had broken in two places, viz. in the neck, and about the margin of the pectoral muſcle: but no relief followed; on the contrary, the maſs of diſeaſe ſeemed to be rapidly increaſing. The child was bowed forwards, ſo that the ſpine was much curved in the loins; the left leg appeared paralytic; and a ſwelling was perceived in the abdomen, which I could not but aſcribe to an enlargement of the external iliac glands. The child was extremely emaciated; his ſkin felt hot and dry; his tongue was covered with a brown fur; and the ſtools were black and highly offenſive. As there was no expectation that he could ſurvive this deſperate ſtate, thoſe medicines only were preſcribed that ſeemed likely to correct the

ſtate

ſtate of the digeſtive organs; ſuch as occaſional doſes of calomel and rhubarb. A ſtrict attention to diet was alſo recommended. Under this treatment the ſtools gradually became natural, and the tongue clean. The diſeaſe ſeemed to ſtop immediately. As the health was reſtored, the ſwellings rapidly ſubſided; and the child became one of the healthieſt and ſtouteſt of the family.

CASE XVI.

A female child, after having had the ſmall pox, got into bad health from diſorder of the digeſtive organs. She was then ſuddenly attacked with a ſcrofulous affection of the knee and elbow of the oppoſite ſides of the body. Two collections of fluid had taken place beneath the faſcia of the leg and thigh. The joints were greatly enlarged, and the ſwelling was apparently cauſed by an increaſe in the ſize of the bones. Had I ſeen either joint, as a ſingle caſe of diſeaſe, I ſhould have ſaid that it would leave the child a cripple. It was manifeſt, in the preſent inſtance, that theſe local diſeaſes were the conſequence of general

general ill-health; and that the firſt object was to correct the diſorder of the ſyſtem. The functions of the digeſtive organs, which had been deranged, were reſtored to their natural ſtate by employing the ſame diet and medicines which had been ſo ſignally ſucceſsful in the preceding caſe. By theſe means the health was re-eſtabliſhed, and the local diſeaſes gradually diſappeared.

I have heard it remarked by ſurgeons of great experience, that patients often recover when many ſcrofulous diſeaſes appear at the ſame time; although ſome of them may be ſo conſiderable, that they would ſeem to warrant amputation had they appeared ſingly. The caſes which I have related afford a moſt clear and ſatisfactory account of the mode of recovery. General irritation and weakneſs bring on diſeaſes, to which perhaps a pre-diſpoſition may exiſt, in ſeveral parts of the body; theſe ceaſe when their exciting cauſe is removed.

Of late indeed I have been equally ſurprized and rejoiced to ſee ſwellings of the abſor-

abſorbent glands in children readily diſperſed by that medical attention to correct errors in the functions of the digeſtive organs, which I have deſcribed. Some of theſe ſwellings came on rapidly, and ſome ſlowly, but theſe were ſo large and ſo much inflamed, that if any perſon had formerly told me they might be diſperſed by ſuch meaſures, I ſhould have thought the aſſertion an abſolute abſurdity from its direct contradiction to my former experience. From amongſt a conſiderable number of caſes I ſhall relate the following.

CASE XVII.

The ſon of one of my friends had gradually fallen into a very bad ſtate of health. The child was about ſix years of age, and had been unwell for ſeveral months; when, in concluſion, two glands in the neck became gradually enlarged, till each had attained the ſize of a large walnut. The child's tongue was much furred, his appetite very deficient, and capricious; his bowels had a coſtive tendency; his ſtools were never of a proper colour. His fleſh was waſted and flabby, his

countenance pale, his pulſe feeble and frequent; and his general demeanor languid and irritable. I told his father, that I could adviſe nothing as a local application better than bread and water poultice; and that the chief object of attention was the correction of that diſorder under which he had long laboured, ſo that his conſtitution might regain its natural tranquillity and ſtrength. Upon this ſubject I promiſed to ſpeak to the gentleman who had hitherto attended the child. In about two days a deep redneſs came over the moſt prominent part of each gland, denoting, as I concluded, a diſpoſition in the internal parts to ſuppurate. The child took half a grain of calomel with five of rhubarb every ſecond night, and ten drops of the acid: vitriol: dilut: three times a day. In about a week, an evident amendment was obſerved in the appetite, ſpirits, and colour of the excretions from the bowels. In a fortnight, the ſpirits of the child became, to uſe the words of the parents, ungovernable; and an evident amendment of the health in general took place. In a month, the child might be ſaid to be well; though he ſtill remained thin.

After another fortnight, he diſcontinued all medicine, except the occaſional uſe of the powders, for at this time all veſtiges of enlargement in the glands had diſappeared. I do not relate this caſe as extraordinary, for I have ſeen ſeveral worſe caſes cured by the ſame means; and as I have ſaid, ſome of the ſwellings have come on tardily and others rapidly. It is related merely, becauſe in the ſame family another child had ſuppuration of the glands; which left a ſore that healed ſlowly.

It cannot indeed be proved that theſe caſes would have been ſtrumous; it can only be ſaid, that to all appearance they were the ſame as others which I have formerly ſeen ſuppurate, and form ſores ſlow in healing, and ſuch as are generally denominated ſcrofulous.

CASE XVIII.

A ſlender child about five years of age had five ſwollen glands on the right ſide of the neck, and three on the left. Their magni-

tude was conſiderable, and the child's appearance ſickly; and the diſorder had ſo threatening an appearance, that the gentleman who attended the family requeſted the parents to take ſome additional opinion on the caſe. The tongue was furred, and the bowels ſo habitually coſtive, that ſometimes a week elapſed without any alvine evacuation. As the child was feveriſh, he took at firſt ſome ſaline medicines in a ſtate of effervescence, which was afterwards changed for the diluted vitriolic acid. He alſo took half a grain of calomel, every ſecond night, which gradually brought about a regular ſecretion of healthy bile, and in about three weeks the child might be ſaid to be well, for his bowels acted regularly when no medicine was taken, and the diſcharges from them were properly tinctured with bile. The uſe of calomel was now only recommended, if the appearance of the ſtools varied from the rhubarb colour. The ſwollen glands diſappeared, nothing but a bread and water poultice having been applied to them. The bodily powers of the child were conſiderably augmented, and his aſpect became healthy.

CASE XIX.

A boy between ſeven and eight years of age had a lameneſs about the hip, which was ſo conſiderable as greatly to alarm his parents. There was no tenderneſs when the joint was compreſſed either in front or from behind. The tongue was furred, and he had been ſubject to ſlight paroxyms of fever, reſembling an intermittent. I recommended half a grain of calomel with a few grains of rhubarb every other night. In a ſhort time the lameneſs ſo entirely diſappeared, that I was no further conſulted on his caſe. About eight months afterwards, however, I was deſired to ſee him with three conſiderably enlarged abſorbent glands on one ſide of his neck, and two on the other. They had for many days continued to increaſe. He was at that time feveriſh, and I now became more acquainted with the ſtate of his health in general. I learned that he eat rather voraciouſly, and could not be reſtrained from taking very highly ſeaſoned food; that though his bowels regularly enough

evacuated the reſidue of the food, the ſtools were of various, and always of faulty colours, and very offenſive; that he perſpired profuſely upon the ſlighteſt exertion. His ſkin was covered every where with ſcurf and eruptions, and his hands were hard, harſh, and chapped. He took the medicines, as in the preceding caſe, for about the ſame length of time, when the glandular complaint was well. He continued the half grain of calomel, however, for three months, for the ſecretion of bile had not even in that time become healthy in quantity and quality. His ſkin was, however, perfectly ſmooth and free from eruptions. His hands only retained in a ſlight degree their former feel.

I have alſo ſeen inſtances of ſores apparently ſcrofulous left after the ſuppuration and ulceration of diſeaſed glands, which had continued for more than a year, heal rapidly under the ſame kind of treatment. I have however ſeen other inſtances, in which the ſores did not appear to be amended by ſuch conſtitutional treatment.

I have

I have alſo obſerved ſeveral inſtances of ſtrumous affections of the fingers in children get well in proportion as the general health has become eſtabliſhed by correcting diſorders of the digeſtive organs. I need not however detail them. Theſe diſeaſes were, in my opinion, ſtrictly ſcrofulous. The nature of the diſeaſe in the following caſe will not I think be doubted, and on this account I relate it.

CASE XX.

A child about five years of age, after having had the meaſles, got into a bad ſtate of health, and had ſeveral ſcrofulous abſceſſes form on the fore-arm. They became ſores of various ſizes, but in general about that of a ſhilling; the ſurrounding ſkin was thickened and of a purpliſh hue. The ſores were foul and without granulations. In this ſtate they were when I firſt ſaw the patient, and had continued with occaſional amendment and deterioration for two years. Being conſulted on the caſe, and perceiving the child appeared out of health, I examined his tongue, which was furred; enquired reſpecting his

appetite, which was deficient, and the ſtate of his bowels, which were coſtive. The ſame medicines were preſcribed as in the former caſes. In about ſix weeks the child got into remarkably good health, which it had not enjoyed from the time of its firſt indiſpoſition, and the ſores rapidly and ſoundly healed.

My obſervations have led me to believe, that moſt local diſeaſes are preceded by general indiſpoſition, of which the diſordered ſtate of the digeſtive organs is an evidence, and may have been a cauſe. The relief ariſing from the correction of this diſorder is indeed ſurpriſing, and the general knowledge of this fact I have deemed my duty to promote to the utmoſt of my power. When the appetite has been deficient, I have been accuſtomed to recommend acids as medicines, when on the contrary it has been good, and the digeſtion difficult and imperfect, I have recommended bitters and alkalies.

I mention this to account for my giving the vitriolic acid in theſe caſes. It is in addition

dition to its medical properties, ſo pleaſant, that even ſpoiled children will take it without agitating themſelves, and diſtreſſing their parents. It pleaſes me to be able to give proofs of its utility; becauſe, I think, they will be allowed to diſprove that any ſpecific good ariſes from the adminiſtration of alkalies. Alkalies may be uſeful occaſionally in dyſpeptic caſes; but that they have no ſpecific action in the cure of ſcrofula, I have long thought from ſome experiments which I made on this ſubject at the hoſpital. In caſes of ſcrofulous glands, I gave ſoda in doſes which were gradually increaſed till they affected the qualities of the urine, without perceiving any benefit to accrue to the local diſeaſe from their uſe. The pleaſure which I feel in thus endeavouring to diſprove the ſpecific virtues of alkalies ariſes from this circumſtance:—That if I am right in my notion, that they are chiefly uſeful by their operation in the ſtomach and bowels, it ſhews how much better it is to be informed of what ought to be done for the cure of diſeaſes, than of the means by which it may occaſionally be accompliſhed; or in other words, it ſhews

how much ſuperior the rational is to the empirical practice of medicine.

After having attempted to ſhew that many non-deſcript diſeaſes ariſe apparently from the ſtate of the conſtitution, and that carbuncle and ſcrofula are ſometimes conſequences of the ſame cauſe; it may be enquired, whether, if the ſame general diſturbance of the health can produce ſo many varieties of local diſeaſe, it may produce many others, and even every variety. Even in cancer, diſorder of the digeſtive organs appears to be antecedent to the local diſeaſe, and aggravated by its exiſtence; but whether this diſorder be the effect or cauſe of the conſtitutional diatheſis cannot, I think, be at preſent determined.

CASES.

SECTION IV.

On Diſeaſes of various Glands, ariſing from Diſorder of the Conſtitution.

I HAVE alſo obſerved that diſeaſes of particular organs ſeem to originate, in many inſtances, from diſorder of the ſyſtem in general. The teſtis of the male ſubject, and breaſt of the female, have furniſhed me with examples of this obſervation. In the caſes to which I allude, the teſtes were alternately affected, enlarging conſiderably, and then ſubſiding *. I have met with numerous and intereſting caſes of ſuch diſeaſes of the breaſt; however, the relation of a few will be ſufficient to inform the reader of all that I know concerning this ſubject.

* The cauſe which excites and maintains alternate irritation and diſeaſe of the teſtes, generally reſides in the urethra; but there was no diſeaſe of that part, in the caſes which I now mention. The patients firſt became unhealthy, and diſorder of the teſtes followed. Similar affections are not uncommon in pſeudo-ſyphilis.

CASE XXI.

A lady came to London, to ſubmit to the removal of a diſeaſed breaſt, if it ſhould be judged neceſſary. The diſeaſe had exiſted for more than two years. The breaſt of the affected ſide was one third larger than the other; indurated in ſeveral parts; and ſo much enlarged and hardened in one place, that this might have been taken for a diſtinct tumour on a haſty and inattentive examination *. This part was ſituated near the margin of the pectoral muſcle. The diſeaſe had reſiſted the various means employed with a view to diſperſe it, ſuch as leeches, lotions, mercurial ointment, &c. It was occaſionally painful, and cauſed the patient ſo much mental anxiety, that the ſurgeon, who attended her in the country, thought it ſhould be removed. The mammary gland of the op-

* It may not be improper to obſerve here, for the inſtruction of the younger part of the profeſſion, that if a breaſt containing a portion which is particularly indurated be examined with the points of the fingers placed circularly, the diſeaſe will feel like a ſeparate tumour; but if the flat ſurface of the fingers be moved over it, its true nature will become manifeſt.

poſite

poſite ſide was far from being in a perfectly healthy ſtate; which circumſtance appeared to forbid an operation, ſince the ſame diſeaſe might take place afterwards in the oppoſite breaſt. The patient's general health was much impaired, her tongue was furred, her appetite deficient, her digeſtion imperfect; the biliary ſecretion was diſordered, and the bowels coſtive. I ordered her to take a compound calomel pill every other night, five grains of rhubarb half an hour before dinner, and the infuſion of gentian with ſenna, ſo as to procure a ſufficient evacuation of the bowels daily. Linen moiſtened in water was applied to the part in the evening, or when it felt painful and heated. This plan of treatment reduced the bulk of the diſeaſed gland by at leaſt one third in the courſe of a fortnight. The patient went afterwards into the country, ſtill employing the ſame medicines; and was entirely free from the diſeaſe in three months, though ſhe felt occaſionally ſhooting pains, which probably indicated that her health was not completely re-eſtabliſhed.

CASE

CASE XXII.

A lady conſulted me on account of a conſiderable ſwelling of the breaſt, attended with much pain. It had come on ſuddenly, and had been painful about a week; but ſhe thought that a lump had exiſted previous to this time. The principal tumour was on the ſide next the ſternum, and was as large as an hen's egg; it ſeemed to be diſtinct, yet there was a general ſwelling, with partial induration of the ſubſtance of the gland. The tongue was furred, the bowels coſtive, and the pulſe frequent; and ſhe was, to uſe her own expreſſion, very nervous. I directed her to uſe the ſame means as were mentioned in the preceding caſe. Small doſes of mercury act beneficially on the bowels, by inducing regular and healthy ſecretions; and I know no better method of adminiſtering it as a diſcutient. The general induration of the breaſt and tumefaction of the integuments ſubſided quickly under this treatment, and left the lump in the ſame ſtate which I ſuppoſed it to have been in before the attack of general

ſwelling

ſwelling and pain. In another week this apparently diſtinct tumour was flattened on its ſurface, diminiſhed in ſize, and confuſed with the ſubſtance of the mammary gland. Its form varied each ſucceſſive week; it firſt became oblong, and afterwards ſeemed to ſeparate into two parts; but in leſs than ſix weeks no trace of it could be felt.

CASE XXIII.

A medical man, who reſides in the country, brought his daughter to town for advice. She had apparently a tumour in her left breaſt, between the nipple and the axilla; in which part ſhe had felt a good deal of pain. The ſwelling was of very conſiderable ſize, and the breaſt ſo tender, that I could not exactly make out whether it aroſe from diſtinct tumour, or from a partial enlargement of the mammary gland. Want of time prevented the patient's father from ſhewing the caſe to another ſurgeon. I could only give him this opinion; that in the preſent circumſtances no one would think of an operation. I recommended the application of the lotio ammon. acetat. when the part felt heated; and as the patient had diſorder of the

ſto-

ſtomach and bowels to a great degree, that the chief attention ſhould be paid to the ſtate of theſe organs. A grain of calomel was directed to be taken every ſecond night; rhubarb before dinner, and infuſ. gentian and ſenna, if neceſſary.

About two months afterwards, having occaſion to be in that part of the country where the patient reſided, I called on her. Her father then told me that the ſwelling had ſubſided conſiderably, after his daughter's return in the country; and that of late he had not examined the complaint, as ſhe told him ſhe felt no uneaſineſs from it.

When I now examined the breaſt, I could not perceive any difference between it and the other. No veſtige was left of a diſorder, which had been of ſuch a magnitude, as to occaſion conſiderable alarm; a circumſtance that excited the greateſt ſurprize in the mind of her father, who was a practitioner of much experience *.

* I have alſo known caſes of induration and ſuppuration of the ſalivary glands, apparently cauſed by the ſame general diſorder, and cured by the ſame treatment.

Before I had paid attention to thoſe complaints which ariſe from, or are aggravated by conſtitutional cauſes, I could not have believed that ſuch conſiderable local diſeaſes, after reſiſting various topical and general means, ſhould give way ſo readily and completely to ſmall doſes of medicine. It is only by conſidering the manner in which this effect is produced, that the ſubject can be placed in a proper point of view.

An attention to the ſtate of the bowels is indiſpenſably neceſſary, even in the common practice of ſurgery. A ſimple cut of the finger frets into a bad phagedænic ſore, which reſiſts every local remedy ſo long, that amputation is at laſt propoſed. This is the conſequence of bad health, which in its turn is aggravated by the irritation of the ſore. The patient has a furred tongue, with other ſymptoms of diſordered digeſtive organs. An attention to this diſorder corrects the painful ſtate of the ſore, which now heals rapidly under ſimple dreſſings.

A patient has a diſorder in the urethra, almoſt

almoſt too trivial for ſurgical attention; yet producing much inconvenience. The functions of the digeſtive organs are impaired, and he is hypochondriacal. He conſults a phyſician, under whoſe care his general health is amended, and he no longer feels or thinks of the local diſeaſe.

An eryſipelatous inflammation of the leg is imputed to ſome trivial cauſe; as for inſtance a gnat-bite. It becomes worſe under the common remedies. The health has been long declining, and the chylopoietic viſcera are obviouſly deranged. The eryſipelas is quickly cured by medicines preſcribed for that diſorder.

A patient has a trivial ſore on his leg which the ſurgeon finds a difficulty in curing by the uſual methods. The patient feels indiſpoſed, and has a manifeſt diſorder of his digeſtive organs. The ſore begins to ſlough, and becomes very painful. The diſorder of the ſtomach and bowels is augmented; ſo great is the indigeſtion, that the ſmall quantity of food which the patient thinks it neceſſary

neceſſary to ſwallow for ſuſtenance, feels weighty and uncomfortable in the ſtomach; and the vegetable food becomes almoſt corroſively acid. Opium fails to procure ſleep, or even to give eaſe. When the mortification has ſpread ſo as to occupy almoſt one fourth of the integuments of the leg, ſeveral very copious pultaceous ſtools of a greeniſh brown colour are diſcharged from the bowels in the courſe of the night, and the patient's feelings undergo an entire revolution. Before this, the ſtools procured by medicine were watry and dark coloured. The patient now ſleeps like one long haraſſed by pain and watching; his ſtomach is tranquil and willingly receives aliment, which now produces no uneaſy ſenſations. The ſkin which had been hot and dry, becomes moiſtened with a gentle perſpiration, and the pulſe beats with its natural frequency, and in a tranquil manner. The effects of this favourable criſis being maintained by medical treatment, the ſloughs are thrown off and the ſore heals with a rapidity indicative of conſiderable vigour of conſtitution, and further demonſtrative of the ſloughing not hav-

ing been the effect of vaſcular weakneſs, but of nervous irritation. I could relate numerous caſes of eryſipelatous inflammation terminating in ſloughing, in which the diſeaſe aroſe from a ſimilar conſtitutional cauſe.

A patient ſuppoſes that his knee is ſtrained; for pain and inflammation of the joint ſuddenly come on, with depoſition of fluid into the articular cavity; this attack is attended with fever, furred tongue, and unnatural diſcharges from the bowels. Leeches, cooling waſhes, and poultices; in ſhort, all topical applications are unavailing. It is a caſe of rheumatic inflammation, for which a phyſician is conſulted. Five or ſix weeks elapſe without any abatement of the diſeaſe, the patient being almoſt unable to ſtir in bed. An alteration in the health ſuddenly takes place; the tongue becomes clean, the bowels regular, and biliary ſecretion healthy; and there is no longer any pain in the knee. All the fluid is abſorbed from the joint in two days, and the patient walks about his chamber. Or there may actually have been ſome local injury; but the conſequences are very con-

ſiderable and violent, and quite incommenſurate to the cauſe. Such occurrences can only be explained by imputing the effects to the ſtate of the health in general *.

A caſe like that deſcribed in the preceding ſketch would, I believe, be acknowledged by every one to be dependent on the ſtate of the conſtitution in general; but I could bring forward a great number of inſtances of chronic affections of joints, incurable by local meaſures, which were evidently cured by correcting thoſe errors in the ſtate of the digeſtive organs, which were the cauſe or effect of general diſorder of conſtitution. In diſeaſes of joints, we find three diſtinct kinds of caſes. Firſt a ſcrofulous diſeaſe of the bones, which ultimately affects their articular ſurfaces; ſecondly, an inflammatory affection of the joint, producing effuſion of fluids into its cavity and ulceration of the cartilages and ligaments; and in this caſe, the moſt perfect reſt, and moſt ſtrenuous efforts by local

* As operations are injuries, ſo we ought not to perform them, if it can be avoided, when the conſtitution is much diſordered. I could relate ſeveral inſtances of the wounds made in operations, aſſuming diſeaſed actions from ſuch a ſtate of the conſtitution.

means to put a ſtop to inflammation are requiſite; and thirdly, an inflammation dependent on conſtitutional cauſes. This inflammation is ſometimes of an active and painful nature, and ſometimes of a more indolent and chronic character; but whatever form it may aſſume, it is leſs prone to injure the ſtructure of the joint, and little ſuſceptible of cure by local meaſures, whilſt it yields to thoſe means which tend to improve the health in general. When a diſeaſed joint is ſo ſituated as to become an object of examination, theſe circumſtances will be ſufficiently evident. I am induced to mention them chiefly on account of ſuch variety of affections occurring equally in the hip, as well as in the other joints, in which caſe the benefit accruing from different modes of treatment is leſs demonſtrable to the ſight and touch *.

* As I know of no treatiſe on diſeaſes of the hip in which the diſtinction of caſes is made; and as, from what I have ſeen, I cannot but conſider the ſubject to be very important; ſo I think I ſhould do wrong to forego the preſent opportunity of relating as ſuccinctly as poſſible two of a conſiderable number that have come under my obſervation, in order to excite attention to this ſubject.

CASE

CASE I.

A boy about twelve years old was ſent from ſchool to London, being ſuppoſed to have a lumbar abſceſs. There was a conſiderable collection of fluid beneath the faſcia of the thigh; but it received no impulſe when the patient coughed. The boy limped in walking as if he had a diſeaſed hip, ſcarcely bearing on the affected joint. When preſſure was made on the front of the orbicular ligament, it gave him acute and conſiderable pain. He was kept perfectly quiet in bed, blood was taken by leeches repeatedly from the integuments oppoſite to the inflamed joint, and linen wet with diluted aq: ammon: acet: conſtantly applied, till preſſure no longer occaſioned pain. A bliſter was then applied over the joint, and the cuticle being removed, the ſore ſurface was dreſſed with ſavine cerate. This dreſſing produced conſiderable inflammation and ulceration beyond the bliſtered part, and cauſed the ſurface of the ſkin which had been deprived of its cuticle to mortify. Near a month elapſed before the ſore healed. At this time no fluid was diſcoverable beneath the faſcia; no uneaſineſs was felt when the joint was compreſſed; and the boy could not be prevented from getting up, becauſe he felt as competent to walk about, as before the occurrence of his diſeaſe. He went to ſchool again in the country, and after two years was put into a merchant's employ; in which ſituation, he was obliged to be conſtantly walking about the town. He then again became lame in the ſame manner, but not to the ſame degree. There was, however, no effuſion of fluid beneath the faſcia of the thigh. A month's reſt with ſimilar treatment ſeemed to have cured this relapſe; and I then told his father that he muſt change the employment of his ſon: obſerving, that though the joint might recover ſufficiently

to endure common exercise, without injury, it was not to be expected that it would ever be able to sustain violent exertions with impunity. I urged him, also, to let me know immediately if there was any return of lameness. About three months afterwards, I met the father and his son in the street, and observed that the youth limped in walking very much. I asked why I had not been informed immediately, as I had requested, of return of lameness; and further enquired, whether the boy still continued in the same situation. Being told that he did so, I felt so much hurt at the cruel and absurd conduct of his father, that I declared I would no longer interfere in their concerns, nor was I asked to do so.

All that I can further relate of this case is, that a large abscess formed and broke behind the trochanter, and that I once afterwards saw the poor lad lying in St. Bartholomew's hospital with his thigh bone dislocated in consequence of the destruction of the ligaments of the joint.

CASE II.

A young lady of a delicate and susceptible constitution, who had suffered much uneasiness of mind on account of some of her friends, became so excessively lame in the left hip that she could not move a few steps without support. Pressure on the front of the joint occasioned considerable pain. Her tongue was much furred, and her bowels greatly disordered, and she had fits of agitated and difficult respiration. I recommended nothing but tepid fomentations to the hip, and explained to her physician what I thought would be right to be done with regard to the state of the digestive organs.

As she became better in health, her power of moving about increased, and she went to the sea-side. After two

years

years there ſtill remained ſome tenderneſs, when the hip joint was compreſſed and ſome thickening of the parts which covered it. She, however, eventually got well, though no local applications of any moment were made to the diſeaſed parts. I need ſcarcely add, that the means employed in the firſt caſe, with ſuch ſtriking ſucceſs, would have been prejudicial in the latter, whilſt thoſe which were ſerviceable in the laſt caſe, would have been futile and nugatory in the former.

CASES.

SECTION V.

Diſorders of Parts which have a Continuity of Surface with the alimentary Canal.

I HAD formerly obſerved ſpaſmodic ſtructures of the œſophagus to diſappear under various modes of treatment, in a manner which I did not underſtand. Mercury ſeemed to effect the cure in three inſtances. Many caſes have occurred to me lately, in which the irritation in the œſophagus ſeemed to be firſt excited and afterwards maintained by diſorder of the digeſtive organs. It will be readily allowed, that ſpaſmodic ſtrictures of the œſophagus, when long continued, may cauſe a thickening in the affected part of the tube, and thus the ſtricture may become permanent. One inſtance will be ſufficient to illuſtrate and verify this view of the ſubject.

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CASE XXIV.

A lady, who had been in bad health for many years, and was ſuppoſed by her medical attendants to have a ſtricture of the œſophagus, became at laſt incapable of ſwallowing any food, except in very ſmall quantities; ſhe was even then obliged to drink ſome fluid after each morſel, to facilitate its deſcent into the ſtomach. Some mucus and blood roſe into the mouth after vomiting, which very generally followed the taking of food. Under theſe circumſtances, I was requeſted to paſs a bougie, in order to aſcertain the ſtate of the œſophagus; but I declined this examination, on account of the diſorder which exiſted in the ſtomach. The tongue was greatly furred; the parts in the epigaſtric region very tender: the bowels much diſordered; the ſecretion of bile either very unhealthy, or entirely wanting; every ſymptom, in ſhort, which indicates an aggravated form of diſorder of the digeſtive organs, exiſted in a ſtriking degree. The ſtomach and bowels were brought into a better ſtate by ſuch medical attentions as I have already ſo often deſcribed; and the œſophagus partook of this

this amendment: for moderately ſized morſels of food could now be ſwallowed without the neceſſity of waſhing them down by liquids. The general health alſo improved, and ſhe became fat. But the diſorder of the digeſtive organs, which had been of long continuance, was not completely ſubdued; ſhe was ſtill ſubject to relapſes, and in ſome of theſe the difficulty of deglutition again occurred *.

The throat and mouth are the parts next in order; but it is unneceſſary to relate additional caſes under this head: ſome of the inſtances already recorded will be ſufficient to confirm my ſentiments on this ſubject, and the propriety of the practice which I have recommended.

That diſeaſes of the noſe may be cauſed or aggravated by irritation ariſing from the ſtomach is a propoſition, which will, I think, be readily granted. Indeed it ſeems ſurpriſing that the operation of this cauſe has been

* This patient has now for more than four years been free from this diſorder.

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ſo little adverted to in books of ſurgery; ſince the phænomena which prove the fact are ſo well known. Are the monſtrous noſes, cauſed by exceſſive drinking of vinous and ſpirituous liquors, to be otherwiſe accounted for, than by irritation ariſing from the ſtomach? And do not worms in children cauſe a teazing ſenſation in the extremity of the noſe? I had ſeen, in private practice, ſeveral caſes of irritation and ſwelling of the end of the noſe, in ſome inſtances accompanied with ſmall ulcerations of the pituitary membrane. In theſe caſes, the ſkin over the noſe, which was tumid, became rough and diſcoloured: the middle of the diſcoloured part became ſound; whilſt the circumference retained its morbid actions, the diſeaſe there ſpread in a ſmall degree. In theſe caſes the tongue was furred; and there were evident indications of diſorder in the ſtomach and bowels. The diſeaſe was checked, and cured, by attention to this diſorder. I was ſtrongly impreſſed with the opinion, that if theſe caſes had been neglected, they would have terminated in that herpetic ulceration, which ſo often affects the end of the noſe. I have alſo ſeen ſeveral inſtances of

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that herpetic ulceration in its confirmed ſtate more materially benefited by medical attention to correct the diſorder of the digeſtive organs than by any local application: and I feel confident that it may be frequently cured by ſuch endeavours.

I have obſerved, in all the caſes of that noiſome and intractable diſeaſe, ozæna, which have come under my care lately, that the ſtomach and bowels have been diſordered; and more benefit has been obtained by endeavouring to bring theſe organs into a healthy ſtate, than by all the local application, which had been previouſly tried. I ſtated to a medical friend my opinions reſpecting one patient, who came from the country, and begged to know the effect of the treatment which I had propoſed. He informed me, after ſome months, that he had not been able to ſucceed in correcting the viſceral diſorder; and after relating the means which had been uſed, he adds, "The patient was now attacked with a bilious diſorder, to which ſhe had formerly been ſubject, and for which I gave her ſix grains of calomel in a bolus, which ſoon relieved

relieved her. During this attack the noſe ſeemed well; there was no fetor in the diſcharge, and ſhe recovered her ſenſe of ſmelling." However the diſeaſe returned afterwards as before.

I have known ſeveral inſtances of perſons who have for a long time been ſubject to polypi of the noſe, in which the polypi ceaſed to grow after ſome attention had been paid to correct a diſorder of the digeſtive organs.

In farther confirmation of the opinion, that diſeaſes of the noſe depend much upon the ſtate of the ſtomach, I ſhall mention the caſe of a woman, who had a diſeaſe of the noſe, which I expected would, at leaſt, prove very tedious and very troubleſome, but which got well ſpeedily under ſimple dreſſings, in conſequence, as appeared, from the effect of internal medicines.

CASE XXV.

This patient was between thirty and forty years of age; had a furred tongue, bowels alternately coſtive and lax, and the diſcharges diſcoloured. An enlargement of the left ala

naſi, cauſed by a great thickening of the parts covering and lining the cartilage, had gradually taken place. The ſkin was diſcoloured, and an ulcer, about the ſize of a ſixpence, had formed on the under ſurface of the ala. The ſore was deep, with a ſloughing ſurface, and uneven and ſpreading edges. Spermaceti cerate was employed as a dreſſing; and the external ſkin was frequently bathed with Goulard's waſh. She was ordered to take internally five grains of rhubarb an hour before dinner, five grains of the pil. hydrarg. every ſecond night, and the infuſion of gentian with ſenna occaſionally. The ſore ceaſed to ſpread, the ſwelling gradually ſubſided, and all diſeaſed appearances were removed in the courſe of a month. The patient alſo found her health conſiderably amended.

In moſt caſes of deafneſs, there is probably a ſtate of irritation, and a tendency to inflammation, throughout the paſſages of the ear. The external meatus may be unuſually ſenſible, the ſecretions being either ſuppreſſed, or diſcharged in an unnatural quantity. The lining of the euſtachian trumpet is thickened;

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and hence it becomes partially obſtructed. It muſt be admitted that ſuch a ſtate of the organ is likely to be aggravated by a cauſe, which maintains or produces irritation in the noſe. When dullneſs of hearing alſo depends on a torpid ſtate of the nerves, it may be cauſed by the ſame circumſtance, which is known to affect the ſenſibility of other nerves.

Indeed, I have remarked that the hearing of many perſons has conſiderably varied with the ſtate of their health in general; ſo that I felt no ſurpriſe from the occurrence related in the following caſe.

A gentleman applied to me on account of ſome pſeudoſyphilitic ſymptoms, which I told him would gradually become well. I adviſed him, at the ſame time, to be particularly attentive to the ſtate of the digeſtive organs, which were generally diſordered by the effects of the poiſon. He took five grains of the pil. hydrarg. every ſecond or third night. The diſorders for which he had conſulted me were all removed in the courſe of two months; when

when I received a letter from him, ſaying, that he thought it a duty he owed to me and to the public to inform me, that the lenient courſe of mercury, which I had recommended, had cured him of a conſiderable degree of habitual deafneſs.

It is well known that ophthalmy frequently ariſes from conſtitutional cauſes; and in ſuch caſes the digeſtive organs are generally deranged. The health will be moſt ſpeedily reſtored, and the local diſeaſe moſt effectually diminiſhed, by correcting the diſordered ſtate of the abdominal viſcera. There is no neceſſity for enlarging upon this ſubject; yet it may be uſeful to ſtate what I have obſerved reſpecting thoſe ophthalmies, which take place ſubſequently to gonorrhœa, and which have generally been aſcribed to a retropulſion of that diſorder, or to the accidental application of the diſcharge to the ſurface of the eye. In the worſt of the caſes, which I have ſeen lately, there was conſiderable redneſs and irritability of the eye, laſting nearly a fortnight. The digeſtive organs were deranged in all the inſtances, to which I allude; and I attribute the

the comparative well-doing of theſe patients to the attention which was paid to their correction. In other caſes, which I had formerly been witneſs to, where evacuations by bleeding and purging, &c. were employed, the diſorder was extremely obſtinate; nay ſeveral patients loſt their ſight.

The caſes of ophthalmy connected with gonorrhœa appear to be of two kinds. In the worſt caſe, and that which I have happened to meet with moſt rarely, there is, I think, reaſon to ſuppoſe that ſome of the diſcharge from the urethra has been accidentally applied to the ſurface of the eye. This circumſtance may be inferred from the copious and puriform diſcharge which takes place from the conjunctiva which is continued for about three weeks, and from the diſeaſe not yielding to any remedies which uſually relieve other ophthalmies. The milder and, to me, more commonly occurring caſe, ſeems to be the reſult merely of irritability of conſtitution. With relation to this ſubject I may mention that I know a patient who has ſeve-

ral times had diſcharge from the urethra and inflamed eyes alternating with each other; and both apparently ariſing from conſtitutional cauſes. I ſhall alſo add the following ſtriking inſtance of ophthalmy connected with gonorrhœa, in which the inflammation of the eyes can neither be ſuppoſed to be the effect of local contamination nor of metaſtaſis.

CASE XXVI.

A gentleman, having a gonorrhœa and being in a remote part of Scotland, felt himſelf obliged to go to the weſt of England with the greateſt expedition. He came to London by the mail coach, and during the journey his eyes became greatly inflamed, and he was much tormented with dyſury; he was indeed ſo ill, upon his arrival in town, as to be unable to proceed on his journey. His eyes were exceedingly red and painful, and the lids tumid. He had frequent and urgent deſire to void his urine. The diſcharge from the urethra was very copious. His tongue was much furred; his bowels had a coſtive tendency; the ſtools were blackiſh and offenſive;

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his pulſe frequent, and neither full nor ſtrong; his ſkin hot and rather dry. He ſaid that formerly, having a gonorrhœa, he had been affected with ophthalmy in the ſame manner. He was directed frequently to bathe his eyes with lukewarm decoction of poppies; but the chief attention was paid to the ſtate of his ſtomach and bowels. He took five grains of the pilul. hydrarg. every night, and other medicines to procure a ſufficient alvine evacuation daily. On the third day he had ſevere rheumatic pains in his ſhoulder. On the fourth, his knee became affected with rheumatiſm, and ſo much ſwollen that he was incapable of moving about, though his eyes were much better, ſo that he was able to ſit up and bear the window ſhutters of his chamber to be left open, which he could not before have permitted. On the fifth day, though better, his eyes were ſtill much inflamed, his dyſury troubleſome, and he was unable to walk from the rheumatic affection of his knee. The diſcharges from the bowels had been regularly obſerved, and they ſtill continued of a very wrong colour, till the evening of this day, when he had a

ſtool properly tinctured with healthy bile. He now felt a ſudden and ſurprizing amendment, which appeared equally ſo to others on the following day; for I found him walking about with very little lameneſs, his eyes requiring no further attention than wearing a green ſhade, and he had no dyſury. In two days he purſued his journey, nor did he experience any relapſe.

There is a chronic ophthalmy, which is, I believe, generally conſidered to be venereal, probably from the difficulty of curing it, and probably from mercury being frequently beneficial to it. As caſes of this deſcription evince how much ophthalmies are likely to depend upon conſtitutional cauſes, I ſhall briefly relate the following to identify the kind of diſeaſe to which I allude.

CASE XXVII.

A gentleman had for more than two years been more or leſs ſubject to a chronic ophthalmy. When he was very bad, he had twice uſed mercury for its cure, and with temporary ſucceſs. The laſt mercurial courſe

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was a conſiderable one, as the relapſe of his diſorder was attributed to the inſufficiency of the former one. The ophthalmy, however, returned with as much, if not with more ſeverity than formerly. The eye was extremely red, very irritable, and his viſion very imperfect. I found the patient ſhut up in a cloſe and dark chamber, from which he rarely ventured to ſtir, leſt he ſhould catch cold. His tongue was furred, and his biliary ſecretion faulty. I directed ſmall doſes of mercury every ſecond night, merely as probilious medicines, and requeſted him to pay attention that his bowels were kept clear without being what is called purged. I alſo urged him to go out into the air and uſe active exerciſe. By purſuing theſe meaſures, the ophthalmy was nearly well in about three weeks. He now either caught cold or fancied that he had done ſo; his general health became diſturbed, and his ophthalmy returned. It got well, however, as the diſturbance of his conſtitution wore of, and though he had two or three times, during a year, ſome trivial returns of ophthalmy, yet they were always induced by general diſorder, and rea-

dily got well by meaſures directed to correct diſorders of the alimentary canal.

That cutaneous diſeaſes * are much connected with the ſtate of the ſtomach, is generally known. Hence various medicines have been recommended to correct diſorders of that viſcus, with the view of removing the more evident, but conſequent diſeaſe of the ſkin. The account, which I have given of diſorders of the digeſtive organs, may lead to a more rational and leſs empirical treatment, and to the more juſt appreciation of the value

* It may perhaps be right to advert to the direct and ſudden ſympathy which exiſts between the ſkin and the ſtomach. In affections of the latter organ, the ſkin is dry and cold, moiſt and cold, hot and dry, or moiſt and dry; and it ſuddenly changes from the one to the other condition, as the ſtate of the ſtomach varies. When the digeſtive organs are diſordered, the irritable ſtate of the ſkin is manifeſted by the effects of bliſters and other irritating applications. A bliſter produces a tormenting local diſeaſe, and even a Burgundy pitch plaſter cauſes extenſive erythema. Indeed, when the conſtitution is irritable, all the modes of counter-irritation, which ſurgeons employ under other circumſtances with ſucceſs for the cure of local diſeaſes, are likely to do harm; and thus theſe curative methods obtain diſcredit in conſequence of their ill-timed employment.

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and mode of action of remedies, which are ſanctioned by experience. It is almoſt ſuperfluous to relate any caſe to authenticate ſo well known a fact; the following, however, may be found intereſting and inſtructive.

A patient in St. Bartholomew's hoſpital had an herpetic diſeaſe of the ſkin. This had healed in the middle, and ſpread in the circumference to ſuch a degree, that it occupied nearly the whole length of the leg, and included two thirds of its circumference. The ſkin had recovered a moderately ſound ſtate in the centre. The diſeaſe was propagated in the circumference by an ulceration, which threw out a projecting and firm fungus of a tawny colour, of about half an inch in breadth. A ſmall groove or channel ſeparated this fungus from the ſurrounding inflamed ſkin, which had not yet ulcerated. A ſimilar diſeaſe occupied the back part of the arm; this was of an oval figure, and reſembled, in every circumſtance, that which I have already deſcribed upon the leg. Theſe diſeaſes had exiſted for nearly two years, and continued to ſpread in oppoſition to every

mode of treatment. Mercury had been employed, even to ſalivation, without any marked alleviation of the local complaint. I immediately perceived that the digeſtive organs were greatly deranged: upon correcting this diſorder, the ſkin ſurrounding the diſeaſe became pale; and all diſpoſition to ſpread ceaſed. The fungus, however, ſtill projected, and did not heal; it was therefore dreſſed with a weak ſolution of kali arſenicatum. This remedy ſeemed to ſubvert the diſeaſed actions, which had produced the fungus; ſo that, in leſs two months, the patient was diſcharged from the hoſpital perfectly well.

I have ſeen ſimilar herpetic diſeaſes, of much leſs extent, ſucceed to the abſorption of matter from ſores upon the genitals. Theſe have got well when the patient has gone into the country, and appeared again when he has returned to town. They have healed under a courſe of mercury, and broken out again when it was diſcontinued.

In this review of diſorders, occurring in

parts having a continuity of ſurface with the digeſtive organs, I have traced them from the ſtomach. Another ſet of diſeaſes may originate from the ſame ſource. The large inteſtines ſuffer more in advanced ſtages of theſe diſorders than the ſmaller ones; hence diſorders of the rectum, and particularly many irritable diſeaſes about the orifice of that bowel, are deducible from this cauſe. I ſhall not, however, prolong the account by the relation of caſes; but content myſelf with aſſuring the reader, that the opinion has been derived from facts, and not from preconceived notions of the operation of ſuch diſorders.

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SECTION V.

In this Section I ſhall mention what information I have obtained by diſſection, relative to the cauſation of other diſeaſes by thoſe of the digeſtive organs. The reciprocal ſympathy, which exiſts between the brain and the digeſtive organs, is generally admitted; but the kind and the degree of the effects ariſing from this ſympathy, is not, perhaps, in general, ſufficiently underſtood. Theſe organs mutally increaſe each other's diſorder; till the affection of the ſenſorium leads to the greateſt diſturbance of the nervous functions, and even thoſe of the mind.

All this may happen without any viſible diſeaſe of the brain. Dr. Kirkland particularly directed the attention of medical men to nervous apoplexy; and the obſervations, which have been made ſince his time, have proved, that not only a general derangement of

of the functions of the nervous ſyſtem producing apoplexy, but alſo partial effects of a ſimilar nature cauſing hemiplegia and paralyſis, may take place, without any viſible change of ſtructure in the brain. I have met with numerous inſtances of this kind; but could not determine whether the affections were merely nervous, or whether they were produced, or aggravated by diſorder of the digeſtive organs. I only know, that the patients died affected by apoplexy, hemiplegia, or more local paralyſis, without any derangement in the evident ſtructure of the brain. I may alſo mention, that I formerly examined the brains of three perſons who died in a comatoſe ſtate, in conſequence of the metaſtaſis of rheumatiſm. In theſe caſes no morbid appearance was obſerved in the brain, except ſome ſlight marks of inflammation of the pia mater. It therefore appears clearly to me, that diſorder and a conſiderable diminution of the nervous functions may take place, without any organic affection of the brain. The perfect recovery of patients, which ſometimes happens, after ſuch diſorders, may alſo be conſidered as additional

evidence

evidence of there having been, in ſuch inſtances, no organic diſeaſe of the brain.

There can be no doubt but that epilepſy may in like manner take place without any morbid alteration of the ſtructure of the brain, or its membranes. Some of the perſons whoſe heads were examined, without the diſcovery of any diſeaſe of thoſe parts, had been ſubject to attacks like thoſe of epilepſy. Dr. Henry Fraſer has, of late, publiſhed a deciſive inſtance in proof of this fact. A patient died of epilepſy, and his brain was examined with particular attention by Mr. Cooper, without any morbid alteration of ſtructure being diſcovered *. In general, however, morbid appearances are evident in the brains of thoſe perſons who die of epilepſy. Tubercles are moſt frequently met with. There is, however, a diſorder of ſtructure which I wiſh briefly to mention, as I do not find that it has been noticed. In two perſons, who died of epilepſy, I found the medullary ſubſtance of each hemiſphere altered from its natural

* See Fraſer on Epilepſy, page 39.

ſtructure;

ſtructure; it had loſt its natural firmneſs, and ſmoothneſs of ſurface, and appeared like thick curdled cream.

Now, if diſorder of the digeſtive organs is capable of cauſing or aggravating nervous diſorder, even to the production of thoſe effects which have been mentioned, when there is no alteration of ſtructure; it muſt be granted that ſuch a ſtate of irritation of the ſenſorium may lay the foundation of an excitement of the vaſcular ſtructure of the brain, and thus very frequently produce organic diſeaſe. When this has occurred, it will aggravate and eſtabliſh the nervous affection, and thus perhaps render it inſuſceptible of cure.

Such are the general obſervations which I have made, by means of anatomical enquiry, relative to theſe ſubjects. With reſpect more eſpecially to the inveſtigation of my preſent object, I have examined the bodies of ſix patients, in whom diſeaſe moſt certainly began in the abdominal viſcera, and was continued in them to the concluſion of their lives.

lives. Nevertheleſs the patients ſeemed to die rather of nervous diſorder, than of diſeaſe of the parts firſt affected. One of the patients died affected with apoplectic ſymptoms, and five with hemiplegia.

In all theſe caſes the liver was greatly diſeaſed, and the bowels alſo exhibited diſeaſed appearances. In three of the caſes there was conſiderable inflammation of the membranes of the brain; and a good deal of water in the ventricles. In two of them no morbid appearance of the brain was diſcovered. I have alſo examined a child, who was ſuppoſed to die of hydrocephalus, accompanied by great diſorder of the ſtomach and bowels. In this caſe the bowels were inflamed, the liver ſound, and the brain perfectly healthy in appearance; yet there had been ſo great a diminution of ſenſation and motion, as to leave no doubt of the exiſtence of hydrocephalus. I am aware, that great opportunities of obſervation, accurate attention to the hiſtory of diſeaſes, and anatomical examination of fatal caſes, are requiſite to enable us to form juſt notions relative to the preſent

ſubject. I thought, however, that it might not be improper to ſtate what had been the reſult of my own enquiries by diſſection, in order to promote a more general attention to the ſubject.

When my attention was firſt directed to the ſubject of ſympathetic affections of other organs, cauſed by diſorder of thoſe concerned in digeſtion, my primary object was, to endeavour to aſcertain, by diſſection, how far pulmonary diſeaſes originated from ſuch a ſource. I have, in the courſe of my enquiries, had ſeveral opportunities of examining the bodies of patients who apparently died of phthiſis, combined with diſeaſes of the digeſtive organs. In theſe caſes both the hiſtory and diſſection tended to prove, that the chylopoietic viſcera were the ſeat of the greateſt and moſt eſtabliſhed diſeaſe, and that the pulmonary affection was a ſecondary diſorder. The liver was greatly diſeaſed, and the lungs were alſo beſet with tubercles; yet a conſiderable portion of thoſe organs was ſound. But diſſections can never concluſively aſcertain the truth of the opinions which I have

have ſtated; for the ſame diſpoſition to diſeaſe exiſting in the conſtitution may equally affect both the pulmonary and digeſtive organs. Nay, obſervations made in diſſection in general, would tend to diſprove the opinions alluded to; for diſeaſes of the lungs are very commonly met with in dead bodies, while thoſe of the liver and bowels are much leſs frequent. Yet conſiderable diſorder of the digeſtive organs does exiſt, and may continue for many years, without any organic diſeaſe being apparent: it is poſſible, therefore, that ſuch diſorder may excite diſeaſe of the lungs, and thus produce a worſe diſeaſe in the latter organs, than what exiſted in the former. In ſhort, the opinions, which I have delivered, cannot be either aſcertained or refuted by anatomical reſearches alone.

Accurate attention to the ſtate of the digeſtive organs may determine this important ſubject, and lead to the prevention and cure of the ſympathetic diſeaſes which I have mentioned. The attention alluded to is not of that general kind, which adverts only to the quantity of the ingeſta, and the periodical expulſion

pulſion of the egeſta, but one that more ſtrictly obſerves whether the viſcera are free from irritation, and whether their ſecretions are healthy or otherwiſe. My opportunities of acquiring practical information on this ſubject muſt neceſſarily have been very limited; yet I have ſeen many caſes which, to me, appeared to prove, that pulmonary irritation ſometimes proceeds from diſorder of the digeſtive organs. In caſes of ſurgical diſeaſes, accompanied by diſorder of the digeſtive organs, I have alſo occaſionally obſerved a cough attended with expectoration to ceaſe, upon the correction of the diſorder of thoſe organs.

A caſe, which happened about five years ago, ſtrongly impreſſed theſe opinions on my mind. A ſervant of mine told me, that his wife was dying of a conſumption, which had been rapidly increaſing for ſix months, and had baffled all attempts to relieve it. Thinking that I could procure her ſome medical aſſiſtance from the hoſpital, I went to ſee her. The caſe, however, ſeemed paſt hope. She was extremely emaciated; her pulſe beat 140

in a minute; her face was flushed; she had a most distressing cough; and spit up more than a pint of mucus, mixed with pus and streaked with blood, in twenty-four hours. The circumstance, however, which most disturbed her was a continual purging of black and offensive matter. She told me that her bowels were first disordered; that an unhealthy state of those organs had preceded the pulmonary affection, and was indeed habitual. I thought it unnecessary to trouble my medical friends in so hopeless a case; and ordered some pills, containing one grain of opium, to be taken in such quantity as was necessary to stop the purging. As she informed me that the disorder began in the bowels, I added to each pill half a grain of calomel. By these means the purging was so much checked, that she did not find it necessary to take more than two pills in twenty-four hours; and when she had taken twelve, the mercury, very unexpectedly, affected the mouth. From that period, the stools became of a natural colour and consistence; the cough and expectoration ceased; and she was soon sufficiently recovered to go into the country;

from

from whence ſhe returned apparently in good health.

Now if it were to be aſcertained, that pulmonary irritation, which might of courſe produce pulmonary diſeaſe, ſometimes ariſes from diſorder of the digeſtive organs*; it would be right to enquire further, whether it produces ſuch effects, by the nervous diſorder it occaſions, and by its operation on the health in general; or by means of a more immediate ſympathy exiſting between the pulmonary and digeſtive organs. I do not mean to inſinuate, by what has been ſaid, that pulmo-

* In the ſecond part of my ſurgical and phyſiological eſſays in which I related experiments, made with a view to aſcertain the functions of the ſkin, I mentioned that as it was manifeſt the ſkin and lungs were both engaged in the function of throwing forth carbonic acid gas, it followed, that when from viciſſitudes of the atmoſphere or weakneſs of the ſanguiferous organs, the circulation and ſecretion of the ſkin were much diminiſhed the lungs would be liable to plethora, and have to perform more than their ordinary duty, which circumſtances were likely to induce irritation, and perhaps conſequent diſeaſe of thoſe organs. Thoſe experiments, as they are not of practical importance, I ſhall not reprint.

nary diſeaſes do not ariſe originally and idiopathically; but only to ſuggeſt that they may ariſe ſympathetically, or in conſequence of diſorder of the digeſtive organs. The proportionate number of caſes, in which they originate in this manner, can only be determined by very extenſive experience. That the ſtomach and bowels are diſordered, during the progreſs of phthiſis, will, I conclude, be readily admitted; and that an attention to correct ſuch diſorder is requiſite, muſt be acknowledged, from what has been ſaid relative to the influence of ſuch treatment upon various local diſeaſes.

The actions of the heart ſeem to me alſo to become diſordered from ſympathy with the ſtomach. That palpitations, and feeble or intermitting actions of that organ ariſe from this cauſe, is proved by their ceaſing, when the ſtate of the ſtomach becomes changed. The palpitations which take place after eating, in caſes where the heart is irritable, further evince the ſympathy which exiſts between theſe organs. Surgeons are occaſionally conſulted on caſes of palpitations of the

heart, which the patients miſtake for aneuriſms; and I have ſeen many inſtances, where the great degree of palpitation led to a belief, that ſome organic affection exiſted. This has ceaſed on an amendment of the general health, apparently ariſing from an amelioration of the ſtate of the digeſtive organs, and the patients have continued in perfect health. I have not collected any accurate narratives of the caſes that I have ſeen: none at leaſt which I could properly preſent to the public as a proof of the fact. There is nothing, however, of which I am more perfectly convinced; for I have felt it to be true in my own perſon. After conſiderable and unuſual fatigue, I was ſeized with pain, and a ſenſation of coldneſs in the region of the ſtomach. I had no appetite, and the biliary ſecretion was ſuppreſſed. Whilſt this diſorder continued, which was for many weeks, my pulſe intermitted very frequently, and I was diſtreſſed with hypochondriacal ſenſations. Upon an alteration in the ſtate of the digeſtive organs, and a renewal of the biliary ſecretions, which happened very ſuddenly after taking five grains of the pil.

hydrarg, my pulſe became perfectly regular, and my mind tranquil.

The obſervations, which I have made in ſurgical caſes, lead me alſo to attribute many hæmorrhages, and particularly thoſe from the noſe, to a ſympathetic affection of the heart and arteries, excited by diſorder of the digeſtive organs.

If ſuch a ſtate of the ſyſtem in general, as I have deſcribed, and which is manifeſted by circumſtances denoting the digeſtive organs to be in an unhealthy ſtate, and the nervous ſyſtem to be likewiſe diſordered, may, in ſome inſtances, cauſe various local diſeaſes of parts not eſſential to life, the care of which cuſtom has conſigned to the ſurgeon; and may, in other inſtances, produce diſorders of organs eſſential to our exiſtence, the care of which is allotted to the phyſician; the ſubject muſt be allowed to be of the higheſt importance. Of late, indeed, I have been inclined to conſider theſe circumſtances as the cauſe of the complicated diſeaſes which are met with in man, ſo much

much more frequently than in animals. In man the brain is more ſenſitive, and liable to be diſordered by mental affections. In man the digeſtive organs are liable to be diſordered by ſtimulating and unnatural diet. Sedentary habits and impure air co-operate to aggravate theſe diſorders. The affections of the brain and digeſtive organs mutually increaſe each other; and thus a ſtate of conſtitution ariſes, which is productive of the moſt general and complex diſeaſes. But even theſe do not ſeem to me to be the moſt calamitous terminations of ſuch cauſes. The diſorder of the ſenſorium, excited and aggravated by the means which have been deſcribed, frequently affects the mind. The operations of the intellect become enfeebled, perplexed and perverted; the temper and diſpoſition irritable, unbenevolent, and deſponding; the moral character and conduct appears even liable to be affected by theſe circumſtances. The individual in this caſe is not the only ſufferer, but the evil extends to his connections and to ſociety. The ſubject, therefore, appears to me of ſuch importance, that no apology need be offered for this imperfect attempt

attempt to place it under general contemplation *.

I have endeavoured to ſhew in the introductory obſervations, that a ſtate of nervous diſorder and a diſorder of the digeſtive organs, may reciprocally produce each other; and that when both occur, they become mutually increaſed, and thus derange the conſtitution in general, ſo as to prove the exciting or prediſponent cauſes of numerous diſſimilar and important local affections. I ſhall, in concluſion, for the reaſons mentioned in the preface, offer the opinions which the conſideration of the foregoing and ſimilar caſes have impreſſed on my mind. When I find in diſeaſes that the functions

* The ancients, who formed their judgment of the nature of diſorders by obſerving the excretions, denominated an irritable and deſponding ſtate of mind, Hypochondriaſis; and when a more fixed and irrational dejection took place, they deemed it an atrabiliary diſorder, and called it Melancholia. There can be no doubt of the correctneſs of their obſervations; for if the diſorder began in the nervous ſyſtem, it would generally produce and become aggravated by that diſorder of the digeſtive organs, from which they denominated it.

of

of the digeſtive organs are impaired and diſturbed, I conſider this diſorder as the cauſe or effect of a more general derangement of the ſyſtem at large. When it ſeems to be the cauſe, and when it can be ſpeedily corrected and removed, then the relief and cure of thoſe local diſeaſes which may have taken place, is in many inſtances ſo ſudden and ſurprizing, that I think it impoſſible to conſider the diſorder of the general health and the local diſeaſe, in any other relation but that of cauſe and effect.

The cure of local diſeaſes by means that cannot be ſuppoſed to act otherwiſe than by correcting errors in the functions of the digeſtive organs, incline me to differ in opinion from thoſe who conſider the local diſeaſes alluded to, as the effect of impurity of the fluids, and to coincide with others, who conſider them as the reſult of general irritation, frequently induced by that of the abdominal viſcera.

When I ſee the ſame local diſeaſes removed by the ſame means, though more ſlowly,

I do

I do not wonder at the tardineſs of the cure; and perceiving that the amendment of the local diſeaſe is proportionate to that of the health in general, I feel warranted in forming the ſame opinion as to the mode in which the cure is effected. When I ſee local diſeaſes diſappearing and re-appearing as the conſtitution in general is tranquil or diſturbed, I feel confirmed in my opinion concerning their origin.

If the actions of any part of the body be excited and increaſed by accidental cauſes, it may reaſonably be inferred, that in a ſtate of health they will be ſimple and common, unleſs the ſtimulant be of a peculiar nature; but if the actions be ſpecific and diſeaſed, we may naturally conclude that the cauſe of their becoming ſo is conſtitutional. The occurrence of ſimilar local diſeaſes in different parts of the body, furniſhes an additional proof that the cauſe of ſuch diſeaſes is conſtitutional.

It muſt indeed be very difficult to aſcertain the cauſes of the peculiarities of local diſeaſes;

diſeaſes; but when I ſee ſuch a variety of them cured, ſometimes ſuddenly, by means which tend only to tranquillize and invigorate the conſtitution, I become confirmed in the opinion that a ſimilar ſtate of health may lead to the production of diſſimilar local diſeaſes.

I have further obſerved with reſpect to this ſubject, that perſons who have been out of health, but with no other diſtinguiſhable errors in their conſtitutions than ſuch as I have deſcribed, I mean nervous weakneſs and irritation, with a marked diſorder in the functions of the digeſtive organs, have been liable to a ſucceſſion of diſſimilar local diſeaſes. In ſuch inſtances, I have ſeen in ſucceſſion enlargements of abſorbent glands, boils, rheumatic affections of joints, and dyſury: yet all local diſeaſes have ceaſed as the health became re-eſtabliſhed, by attention to correct the diſordered functions of the digeſtive organs. I have ſeen alſo in the ſame patient enlargements of aſorbent glands, rheumatic diſeaſe of a joint, and an eruptive diſeaſe of the ſkin, which have

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all equally got well as the general health improved, by ſimilar medical attention. Nay, the continuance of local diſeaſes in ſome inſtances, after the diſorder of the conſtitution has been relieved or cured, does not in my opinion invalidate the foregoing conjectures reſpecting their origin. Local diſeaſes, however induced, may have become eſtabliſhed by habit, or continued from that ſtate of diſorder into which they have reduced the part that they have attacked. A local diſeaſe, however excited, may, as we know from experience, be of ſuch a nature as that its actions never ceaſe, and as we have not ſucceeded in curing. I allude to cancer, which occurs, in concluſion, in ſuch conſtitutions as I have endeavoured to deſcribe.

It has been ſaid that I have been haſty in drawing theſe concluſions. Yet, as may be ſeen in my firſt publication, I mentioned, in ſpeaking of diſorder of the digeſtive organs as exciting or aggravating nervous irritation, and thereby cauſing local diſeaſes, it followed that the nervous irritation might exiſt, and produce diſeaſe, without this uſually exciting cauſe.

cauſe. I then, too, brought forwards inſtances of local diſeaſes produced by local cauſes, in order to eſtabliſh our opinions of the independent nature of local diſeaſes. I further remarked, that conſtitutions diſpoſed to local diſeaſed actions, might naturally be ſuppoſed to be liable at the ſame time to a manifeſt diſorder of the nervous ſyſtem and of the digeſtive organs; and from thence, as I obſerved, might have ariſen that connexion between local diſeaſe and general diſorder, which I have ſo continually remarked. I likewiſe added, that though the caſes related naturally ſuggeſted an opinion, that there is ſome conſtitutional cauſe for the production of local diſeaſes, they appeared to me inſufficient to prove it. After having, however, drawn the opinions which I offered from a very conſiderable number of caſes, and having been ſolicitous to ſtate both ſides of the queſtion as fairly as I was able, that the reader might judge of it for himſelf, I truſt no imputation of haſte can properly be attached to my conduct. In my own opinions I place very little confidence; yet

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it is impoſſible to avoid forming them, and I think it proper to relate them, for the reaſons which have been ſtated in the preface.

That ſuch opinions as have been delivered in the four paragraphs preceding the laſt, are deduced from a partial, though moſt commonly preſenting view of the ſubject, I now readily repeat; becauſe I have ſeen inſtances of local diſeaſes, in which I could not trace any diſturbance of the nervous ſyſtem, or of the digeſtive organs, apparently adequate to their production. With reſpect to ſome of the ſtriking caſes which I have related, wherein the ſuddenneſs of the cure made it, I think, evident that the local diſeaſe was the effect of nervous diſorder, induced by that of the digeſtive organs; it may be further enquired, how is it poſſible, that a ſimilar cauſe ſhould produce ſuch various effects? Is it becauſe a ſtate of weakneſs and irritation having occurred, thoſe local diſeaſes enſue, to which there is a prediſpoſition in the conſtitution? And

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are we to conſider the general diſorder of the ſyſtem, as the exciting or prediſponent cauſe of the local diſeaſe?

Granting it were aſcertained, that local diſeaſes generally ariſe from diſturbance of the conſtitution at large, and conſequently, (as it has been my chief object to ſtate,) may be moſt readily and effectually cured by meaſures which tranquillize or invigorate the conſtitution, ſtill it would be very improbable, and contrary to common obſervations, to ſuppoſe that local diſeaſes might not ariſe without any material conſtitutional diſturbance.

Though I am ſtrongly impreſſed with the opinion, that the primary cauſes of local diſeaſes, are, in general, ſuch as I have repreſented, yet I think it probable, that there may be adjunct circumſtances at preſent but little underſtood, which by their co-operation lead to the peculiarity of ſuch diſeaſes. In our preſent ſtate of knowledge, therefore, I think it better to conſider the diſturbance of the ſyſtem in general, as merely

merely the exciting cauſe of local diſeaſes. With this view of the ſubject, the caſes recorded ſhew how ſuddenly local diſeaſes are frequently cured, when the exciting cauſe is removed; how generally they decline in proportion as the exciting cauſe is diminiſhed: and thus they indicate how they may be prevented by a timely attention to mitigate and remove that cauſe.

It may not be improper further to ſtate the opinions which I have formed reſpecting the origin of diſeaſes of particular organs, and which may be conſidered as local diſeaſes, though they are not generally alluded to when that term is employed. If we may be able to trace the origins of diſeaſes of the abſorbent and ſalivary glands, of the breaſt and teſtes, to conſtitutional cauſes, why may we not reaſonably expect that ſimilar circumſtances may produce diſeaſes of the lungs, liver, and kidney? It ſeems to me improbable that ſo complex a ſtructure as the human body, ſhould be ſo correctly formed, as that every part ſhould poſſeſs its due proportion of veſſels and nerves, endowed

dowed with an exact degree of natural and relative ſtrength; or in other words, that there ſhould be no ſuch thing as comparative weakneſs or irritability of the different organs of the body, ſuch as ſhould prediſpoſe them to diſeaſe.

We may therefore account rationally, and in conformity to acknowledged facts, for the production of diſeaſes in vital organs, by ſuppoſing, that a ſtate of general weakneſs and irritability being induced, the naturally weak parts ſuffer in the greateſt degree, and in conſequence they moſt readily become the ſubjects of diſeaſe. But when diſeaſes of vital or other organs occur, it is probable that another cauſe contributes to their production; that is, the ſympathy which each organ has with the diſorders of another. If, then, the organ thus ſympathetically affected be naturally diſpoſed to diſeaſe, its ſtructure may be irremediably ſpoiled in conſequence of vaſcular actions, excited through the medium of nervous irritation. If this opinion be correct, it is highly important, as the medical indication in this caſe is to remove

the exciting cauſe, and our attention becomes directed to an organ in which perhaps there is but little manifeſtation of diſorder, or if there be, which is likely to be overlooked when the attention is ſo forcibly attracted to an apparently far greater evil *.

* See the caſe beginning at page 209.

On ANEURISMS.

The exposure of a portion of an artery, and tying it in order to ſtop the current of blood into an aneuriſmal ſac, as propoſed by Mr. Hunter, may be ſaid to have been a new operation, at leaſt in modern ſurgery. It is not therefore ſurprizing that errors were at firſt committed in the mode of performing it. The hæmorrhages which took place after the operation in the firſt caſes in which it was performed, aroſe from the ulceration of the artery that had been tied. The veſſel in theſe caſes was laid bare and detached in ſome degree from its ſurrounding connexions, and the middle of the detached portion was tied by a ſingle ligature. An artery thus circumſtanced muſt neceſſarily inflame; which it would do in different modes and degrees, accordingly as the ſtate of the conſtitution, or of the part was more or leſs healthy; and this inflammation produced the ulceration of the veſſel.

The occurrence of hæmorrhage led ſome ſurgeons to adopt a practice which cannot but be conſidered as injurious. They applied a ſecond ligature above the other, leaving it looſe, but ready to be drawn tight if the firſt ſhould not anſwer. The ſecond ligature, however, muſt not only keep a certain portion of the artery detached from the ſurrounding parts, but muſt alſo give additional irritation to the inflamed veſſel; and on both theſe accounts it is more likely to make the inflammation end in ſuppuration or ulceration.

The mode of performing the operation for the aneuriſm, which Mr. Hunter's judgment and experience taught him to adopt, was to expoſe and diſturb the artery as little as poſſible, and after having tied it to bring the ſurrounding parts into contact with it again. Though an experienced and ſkilful operator may accompliſh this object with very little diſturbance of the artery from its natural ſituation and connexions; yet I cannot but ſuſpect that ſurgeons in general may not be ſo ſucceſsful, eſpecially in caſes where, from

from the deep ſituation of the veſſel, the ſurrounding it with a ligature depends more on feeling than on ſight*. Alſo, though when the artery is ſound and the conſtitution healthy, ulceration may not enſue, even though the artery is in ſome degree ſeparated from its ſurrounding connexions, and tied by a ſingle ligature; yet it is ſurely proper to guard againſt thoſe circumſtances which tend to produce its ulceration. As large arteries do not ulcerate when they are tied upon the ſurface of a ſtump after amputation, it occurred to me that it would be right to tie them, in caſes of aneuriſm, as nearly as poſſible in the ſame manner and under the ſame circumſtances. The large veſſels on the ſurface of the ſtump continue to poſſeſs all their natural ſurrounding connexions,

* It can neither be conſidered as a compliment to Mr. Home, nor an affront to any other ſurgeon, to ſuppoſe that no one can perform the operation for an aneuriſm after Mr. Hunter's method better than he does. Yet in a ſeries of caſes publiſhed in the Second Volume of the Tranſactions of a Society for the Promotion of Medical and Chirurgical Knowledge, hæmorrhage from ulceration of the artery appears to have been a frequent occurrence.

whilſt they are left in a lax ſtate, in conſequence of their diviſion.

To accompliſh this object in caſes of aneuriſm, I propoſe that the operation ſhould be performed in the following manner: — The operator ſhould divide the immediate coverings of the artery, till he has fairly expoſed its ſurface. When he can touch the bare veſſel, he will not, I believe, find any difficulty in ſeparating from it, by means of his finger and thumb, or the blunt edge of an aneuriſmal needle, the cellular ſubſtance that connects it to the contiguous parts. This part of the operation is not painful and ſhould be performed ſlowly. The firm ſides of the veſſel enables the ſurgeon clearly to diſtinguiſh its ſurface, and by keeping the finger in exact contact with it, a paſſage may be made completely round the artery. Care ſhould be taken not to elevate he artery more than can be poſſibly avoided, becauſe the artery would be ſtretched in its longitudinal direction by ſo doing; and care ſhould alſo be taken not to injure the contiguous veins or nerves. When the operator

operator has thus gently inſinuated his finger between the veſſel and its ſurrounding connexions, ſo that an inch of its ſurface is every where expoſed, two ligatures may be put under it, one of which is to be carried upwards, and the other downwards, as far as the artery is detached, and then tied as firmly as poſſible. The artery ſhould then be divided by a probe-pointed biſtoury in the interſpace between the two ligatures, but nearer to the lower ligature than to the upper one.

In my opinion, large arteries ſhould always be tied with moderately thick ligatures, becauſe we may then draw the nooſe as tightly as poſſible, without apprehenſion of cutting or tearing the coats of the veſſel, or of breaking the ligature. The latter occurrence would in many caſes prove a very embarraſſing circumſtance, and it might be very injurious on account of the jerk communicated to the artery to a conſiderable diſtance. Alſo, when an artery is tied with a thick ligature, the compreſſion made by it is not ſo great as to produce a ſpeedy mortification and ſeparation of the end of the veſſel, ſo

that the ligature remains, in general, a fortnight before it is detached, and therefore, time is allowed for the conſolidation of the ſides of the veſſel prior to its ſeparation *.

When

* Doctor Jones, whoſe numerous and accurate experiments have thrown much light upon the natural means by which hæmorrhages are ſuppreſſed, thinks that the ligatures ſhould be round and firm; becauſe ſuch cords are moſt likely to cut the internal coats of the artery. I am ſolicitous that they ſhould be ſtrong and moderately large; becauſe as far as I have remarked, large ligatures remain longeſt on the arteries before they are detached; and in examining the ſtumps of patients who have died after amputation, I have frequently ſeen the ſides of the artery uncloſed, even though the ligatures have fallen off from them.

Though ligatures when applied to the principal arteries of amputated limbs are ſcarcely ever known to ſlip or become projected from their ſituation, yet it has been apprehended that ſuch an occurrence might take place in caſes of aneuriſm, from the greater determination of blood into the arteries of the limb in ſuch caſes. To obviate ſuch an effect, Mr. Henry Cline ſuggeſted the following method of ſecuring the ligature in its ſituation. His ſuggeſtion was adopted by Mr. Cooper, who thus deſcribes the operation in which it was inſtituted:

"An inciſion being made on the middle of the inner part of the thigh, and the femoral artery expoſed, the artery was ſeparated from the vein and nerve and all the ſurrounding parts, to the extent of an inch, and an eyed probe armed with a double ligature, (each cord of which

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When an artery is thus tied in caſes of aneuriſm it poſſeſſes its natural ſurrounding connexions and ſupport, and is left looſe, in conſequence of its diviſion. It appears, indeed, in moſt reſpects ſimilarly circumſtanced to an artery tied upon the ſurface of a ſtump; and as I never knew hæmorrhage from ulceration of the veſſel take place after the operation for aneuriſm, when it was accompliſhed in this manner, I cannot but continue to practice and recommend this method of ſecuring the artery. That the operation for the aneuriſm will ſucceed when only a ſingle ligature is employed has been proved by experience; but as hæmorrhages, independent of ulceration of the artery, ſo frequently ariſe from an inflammatory action of the veſſels,

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was armed with a needle,) was conveyed under the artery and the probe cut away. The ligature neareſt the groin was firſt tyed; the other was ſeparated an inch from the firſt and tied alſo; then the needles were paſſed through the coats of the artery, cloſe to each ligature, and between them; the thread they carried was tyed into the knot of the ligatures which had been already ſecured around the veſſel: and thus a barrier was formed in the artery, beyond which the ligature could not paſs." See the firſt number of the Eighth Volume of the Medical and Phyſical Journal.

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every thing tending to produce a tranquil ſtate of the wounded parts cannot but deſerve to be put in practice, and the relaxation of the artery by its diviſion, muſt, I think, contribute to this effect.

The caſes of aneuriſms which I am about to recite, are not however intended to illuſtrate any mode of conducting the operation, but merely to ſhew the powers which nature poſſeſſes of carrying on the circulation, and maintaining the limb in its priſtine ſtate of vigour and ſtrength, even though ſo large an artery as the external iliac may have been tied, and thereby rendered impervious.

CASE I.

Feb. 1796.—James Lindſey, aged thirty-four, about a year ago perceived a ſwelling beneath the calf of his right leg; and ſoon afterwards, whilſt walking, he ſuddenly felt, he ſaid, "as if he had been ſtruck on the part "by a cannon ball," the pain being ſo great that he could not move for ſeveral minutes. The pain, however, gradually abated; but the ſwelling of the leg had continued to increaſe

ſince

ſince that time. The whole calf was now lifted up by a quantity of blood effuſed beneath it. The muſcles appeared thin, and were ſo extremely tenſe as to occaſion great pain, accompanied with conſiderable eryſipelas of the whole leg; ſo that a ſpeedy ulceration and ſloughing, or ſudden rupture of the diſtended part, was hourly to be dreaded. Under theſe circumſtances, tying the artery above the aneuriſm, was the only means of relieving the patient from his preſent ſuffering, and of preſerving him from ſudden death. But what was particularly diſcouraging, both to the patient and ſurgeon, was the diſcovery of another aneuriſm, ſituated in the femoral artery of the oppoſite limb. No preternatural pulſation, however, could be felt in any other part of his body.—The operation was performed by Sir Charles Blicke in the following manner:—An inciſion about three inches in length was made through the integuments of the middle of the thigh, ſo as to expoſe the inner edge of the ſartorius muſcle and the faſcia covering the artery, which was divided to the extent of ſomewhat more than an inch. The artery was ſeparated from its

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connections for one inch of its length. Two ligatures were put under it, and firmly tied, and the artery was divided in the interval between them. The lips of the wound were then brought together by ſlips of ſticking-plaſter. This patient's limb was for ſome time much colder than the other, and nearly three days elapſed before it had regained its natural degree of warmth; but the tenſion, pain, and eryſipelatous inflammation quickly ſubſided. The divided integuments united above and below the ligatures, but not between them; and there was alſo a large diſcharge from the wound: which circumſtance was probably owing to the ſtate of the patient's conſtitution, which was much reduced in point of ſtrength. This man, however, did not complain of the leaſt throbbing, tenſion, or pain in the wounded part; and this entire exemption from the ſufferings of other patients, I could not but attribute to the diviſion of the artery. The upper ligature came away on the tenth, and the lower on the fifteenth day; after which the wound healed gradually, though very ſlowly.

About

About five weeks after this operation, the aneuriſm in the oppoſite thigh was almoſt ready to burſt; the tumour having acquired a pyramidal form, and the ſkin covering the apex having yielded ſo much as to form a kind of proceſs from the tumour. Indeed the integuments at this part were ſo thin, that we every hour expected them to give way. The aneuriſm was ſituated ſo high, as to make it probable that the diſeaſe extended above the place where the arteria profunda is ſent off. The patient had hitherto refuſed to ſubmit to the operation; but on reflecting that if the tumour ſhould burſt in the night, he muſt periſh unleſs the bleeding veſſel could be immediately ſecured, he conſented to let me tie the artery in the groin, whilſt we had daylight and proper aſſiſtance. The tumour approached ſo near to the groin, as to prevent us from compreſſing the artery againſt the bone; for, in attempting this, the compreſs occupied the place where the inciſion ought to be made, and our endeavours to make a compreſſion ſtill higher were ineffectual; they weakened, but did not interrupt the pulſation of the tumour. As the artery was

ſo imperfectly compreſſed, hæmorrhage took place during the operation, which, though not dangerous to the patient, proved extremely embarraſſing to the ſurgeon; for in attempting to lay bare the faſcia of the thigh, I divided, by the very firſt inciſion, ſo many ſmall arteries ſupplying the inguinal glands, and alſo ſo many veins, that the blood which was poured forth, completely filled the ſpace made by the inciſion, and overflowed the ſides of the wound. The application of the ſponge, the uſual reſource on theſe occaſions, was of no avail; for the wound was inſtantly filled again, ſo that the whole operation was to be done upon parts covered with blood, where the only guide in its performance was the feeling. I did indeed ſee ſome expoſed inguinal glands, and found that I had divided two of them in trying to get at the faſcia of the thigh. As ſoon as I could diſtinctly feel this part, I made a ſmall opening through it, and introducing my finger, I divided it upwards as far as Poupart's ligament, and downwards as low as the aneuriſmal ſac would allow me. The pulſation of the artery now ſerved as my guide. Laying aſide,

aſide, therefore, all ſurgical inſtruments, I made way with my finger in a perpendicular direction, till I could touch its coats, and then, with my finger and thumb, ſeparated it from its connections, ſo as to be able to graſp it alone between them. I then paſſed two ligatures under it by means of an eyed probe, and drawing one of them upwards, and the other downwards, as far as the ſpace would permit, I tied them firmly. The upper ligature was about half an inch from the os pubis, and the lower one the ſame diſtance from the arteria profunda, which veſſel I had diſtinctly felt before I tied the ligatures.

There are, perhaps, few ſituations of aneuriſm where the artery can be tied ſo ſeparately and diſtinctly as here; the pulſation directs the ſurgeon to the preciſe ſituation of the veſſel; and if he only keeps ſufficiently cloſe to its ſides when he paſſes the ligature round, neither the vein nor the nerve can be included. I did not divide the artery between the two ligatures; it was ſuggeſted that it were better not to do ſo; and I knew that I could obtain all the advantages of a relaxed ſtate of the veſſel,

veſſel, by merely bending the thigh upon the pelvis. The patient did not, after the operation, ſuffer any kind of pain from the wounded parts; which, I think, ſhews, that the artery did not inflame much in conſequence of the ligature. The ſuppuration was moderate, and every thing relative to the wound went on as well as could be expected. The limb, and particularly the foot, was colder than that of the oppoſite ſide; but in about three days, it gradually acquired its natural temperature; and it all along retained a perfect ſtate of ſenſibility, which I conſidered as a proof that it was ſufficiently nouriſhed. To prevent the heat from being carried off faſter than it was generated, the limb was wrapped in flannel; but I avoided the application of any artificial warmth, leſt its ſtimulus ſhould prove injurious, by exciting action when the powers of life in the part might have been conſiderably diminiſhed.

The blood in the aneuriſmal ſac did not appear to have coagulated before the operation; for the bulk of the tumour could be greatly leſſened by preſſure, whenever the patient

patient would allow the attempt to be made, ſo that I conclude the limb had received a conſiderable quantity of blood through the femoral artery, until that veſſel was tied. The tumour diminiſhed greatly after the operation and the blood contained in it became coagulated. This reduction of the ſwelling, I think, was owing to a conſiderable part of the blood paſſing onwards through the femoral artery: and I regretted afterwards, that, at the time of the operation, I had not endeavoured to preſs all the blood from the aneuriſmal ſac; which experiment would have ſhewn how far it was fluid or coagulated.

Every thing, with reſpect both to the ſtate of the limb, and the patient's general health, went on well till the fifteenth day, when the upper ligature ſeparated, and the blood guſhed in a full ſtream from the open extremity of the veſſel. This fortunately happened during the attendance of the ſurgeons at the hoſpital, and the bleeding was ſtopped by preſſure until their arrival. The ſtream of blood which flowed upon any remiſſion or wrong application of the preſſure,

was ſo large, that we did not dare to remove the patient even from the bed on which he lay. Mr. Ramſden undertook, in this ſituation, to prevent the further eſcape of blood from the veſſel, whilſt I proceeded to tie the artery above Poupart's ligament. Accordingly, I firſt made an inciſion, about three inches in length, through the integuments of the abdomen, in the direction of the artery, and thus laid bare the aponeuroſis of the external oblique muſcle, which I next divided from its connection with Poupart's ligament, in the direction of the external wound, for the extent of about two inches. The margins of the internal oblique and tranſverſalis muſcles being thus expoſed, I introduced my finger beneath them for the protection of the peritonæum, and then divided them. Next, with my hand, I puſhed the peritonæum and its contents upwards and inwards, and took hold of the external iliac artery with my finger and thumb, ſo that I was thus enabled to command the flow of blood from the wound. It now only remained that I ſhould paſs a ligature round the artery, and tie it; but this required caution, on account of the conti-

guity of the vein to the artery. I could not ſee the veſſels; but I made a ſeparation between them with my fingers. Having, however, only a common needle with which to paſs the ligature, I ſeveral times withdrew the point, from the apprehenſion of wounding the vein *. After having tied the artery about an inch and a half above Poupart's ligament, I divided that part, and thus laid the new and the former wound into one. I traced as well as I could with my finger, the continuation of the artery, from the place where the ligature was now made, to that where it was formerly applied. I wiſhed to have divided the artery, and to have

* It would be, I think, an uſeful addition to our ſurgical inſtruments for ſuch purpoſes, to have needles made with handles of pure, and conſequently flexible, ſilver, and with ſteel points that have edges juſt ſharp enough to paſs through the cellular ſubſtance; but neither ſo pointed nor ſo ſharp, as to endanger the wounding any parts of conſequence that may be contiguous to thoſe round which they are paſſed. When the points of theſe inſtruments were once paſſed underneath the veſſel, the ſurgeon could bend their handles ſo as to accommodate them to the ſpace they have to turn in, and thus avoid an inconvenience which, I believe, moſt ſurgeons muſt have experienced; I mean, the great difficulty of turning a common needle in a deep and narrow wound.

ſuffered it to retract behind the peritonæum: but I found it ſo attached to the ſurrounding parts, as to render ſuch diviſion difficult, and perhaps not adviſable.

The lips of the wound were brought together with ſticking-plaſter, and one ſuture only was made, oppoſite to the natural ſituation of Poupart's ligament. The peritonæum was preſſed back into its place, and the protuſion of it reſtrained by bringing together the integuments with ſtraps of ſticking-plaſter.

No perceptible alteration occurred in the ſtate of the limb after this ſecond operation; but the patient's health was conſiderably reduced, by his having ſuffered from the complaint nearly twelve months, by having undergone three operations, and by the loſs of a conſiderable quantity of blood. No adheſion took place between the divided parts; the edges of the wound were open and ſloughy; the wound was painful, diſcharged a great deal of pus, and was ſo extremely tender, that he could not bear it to be touched.

touched. Sill no greater miſchief appeared till the fifth day after the operation, when a hæmorrhage of arterial blood took place in ſuch quantity, that there was no doubt but that it aroſe from the principal artery; though the ligature with which it was tied ſtill remained firm. The patient's health was now ſo impaired, and his weakneſs ſo great, that an attempt at tying the artery ſtill higher up, would have appeared like torturing him without any hopes of ultimate ſucceſs. The wound was therefore cleanſed and dreſſed; ſome compreſſes were applied upon it, and bound down by the ſpica bandage. By this treatment the hæmorrhage was ſtopped; and the attendants were ordered to make a preſſure on the bandage if any freſh bleeding ſhould occur. The compreſſes were renewed for three ſucceeding days; and though occaſionally the wound bled, yet it was not profuſely, or in ſuch quantity as to deſtroy the patient: his ſtrength, however, gradually declined; a troubleſome cough occaſioned extreme pain in the wound, and in the courſe of the eighth day after the laſt operation, he died.

Diſſection.

No marks of diſeaſe were diſcoverable in the aorta, or in the internal iliac artery. The external iliac was covered by a great number of lymphatic glands, which prevented it from being readily diſtinguiſhed; yet, when ſeparated from theſe, it did not appear diſeaſed. For nearly two inches above the part which was tied, the lymphatic glands covering the artery were conſiderably enlarged, having no doubt become additionally ſwollen from the irritation excited by the ligature. The external ſurface of one of them next the wound, had ulcerated; and the ulceration penetrated through the gland, and communicated with the artery, as was afterwards made evident by ſlitting open that veſſel. It was through this aperture that the blood had eſcaped; for the ligature ſtill remained firm upon that part of the artery which it had incloſed. From this ligature to the place where the veſſel had formerly been tied, the artery was ſo cloſely connected with the ſurrounding ſubſtance, that diſſection was required to ſeparate them. The parts of the artery from which

which the former ligatures had ſeparated, were about half an inch aſunder, and the canal of the veſſel appeared perfectly open. — The whole of the veſſels from the bifurcation of the aorta, to the aperture in the tendon of the triceps muſcle, were now removed, and carefully diſſected; and after being ſtuffed, and hardened by ſpirits, they were cut open to ſhew the ſtate of them internally. A coagulum of blood, about two inches long, was found above the part where the laſt ligature was made. At what time this coagulum had been formed, is perhaps difficult to aſcertain; it did not ſeem to have taken place after death, for above it the artery contained no blood; and if it had occurred immediately after the operation, it is probable that it would have prevented the hæmorrhage. I have already remarked, that the man did not bleed for ſome time previous to his death; in which interval, perhaps, this coagulum had been formed. — The ulcerated opening from the artery through the diſeaſed gland, admitted the paſſage of a moderate-ſized bougie. The ligature, which ſtill firmly incloſed the artery, had brought its ſides in contact, ſo as to render it probable that they would have united. All the other

parts of the femoral artery were quite open, ſo that a large bougie could be paſſed from the lower end of it, through the aneuriſmal ſac, to the place where the ligature now remained. About half an inch of the artery was wanting, which had been, as it were, cut out by the ligatures in the firſt operation. The ſides of the arteries below the part which was tied were thicker than natural, and their internal ſurface was rough, and of a yellowiſh white colour. The arteria profunda was filled with coagulated blood, and had become reduced to leſs than the natural ſize. The ſides of the artery of the oppoſite limb had firmly united at the part where it had been tied. No coagulum was found in it, and it had not diminiſhed in ſize in any remarkable degree above the part which was cloſed.

It may be enquired in this caſe, why the artery did not heal, but upon the ſeparation of the ligature remained widely open. That the ligature was tightly applied is, I think, evident from its ſuppreſſing all hæmorrhage till its ſeparation on the 15th day. I am inclined to attribute the want of union in the artery to its unhealthy ſtate, which opi-

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nion is confirmed by the diſſection, which ſhewed that even the lower orifice of the artery had not healed, whilſt the artery in the other limb which was tied much further from the aneuriſm, and where the veſſel was more likely to be ſound and healthy, had become firmly united. The event of this caſe would induce me to tie the artery as remotely from the ſeat of aneuriſm as could with propriety be done.

In this firſt operation of tying the external iliac artery, I was urged to perform it by the impulſe of the moment, for the death of the patient would otherwiſe have been inevitable. In this caſe I thought, I diſturbed the peritonæum too much, and tied the artery higher than was neceſſary. As the limb, however, did not appear to ſuffer materially, I felt it a duty to perform a ſimilar operation in the following caſe. The veſſel was tied lower down, ſo that it was brought into view at the time of the operation. It was tied with two ligatures and divided in the interval; it afterwards firmly united at each extremity, and the ligatures came away at the uſual

time: neither did there appear any deficiency in the nutrition of the limb. Theſe circumſtances afford reaſonable expectations of ſucceſs in future operations of this kind, yet in the preſent inſtance the operation appeared to have been too long delayed, and the patient to have died from an event which was not foreſeen, but which might perhaps have been prevented.

CASE II.

——— Wrungel, a German, by trade a ſugar-baker, of a ſickly aſpect and ſlender make, about 5 feet 7 inches high, and near 40 years of age, was admitted into St. Bartholomew's hoſpital, on account of an aneuriſm in the femoral artery, cloſe to Poupart's ligament. This he imputed to a ſtrain about three weeks before. The tumor at the time of admiſſion was of the ſize of a ſmall orange, and the blood contained in it was fluid; for it could be entirely expreſſed from the aneuriſmal ſac. At a conſultation on the treatment of this caſe, I ſaid that I did not think a ſurgeon warranted in tying the external iliac artery, till he was in ſome meaſure compelled to it by the progreſs of the diſeaſe,

diſeaſe, for the following reaſons. 1ſt. An aneuriſm, in proportion to its increaſe and duration, obſtructs the paſſage of the blood through the natural and principal channels, and obliges it to circulate by other courſes, which are enlarged according to the exigency of the caſe. It ſeems highly probable, that in proportion to the ſize of the artery which is tied, and the magnitude of the part to be nouriſhed after that operation, ſo will be the degree of previous enlargement in theſe collateral channels, which is neceſſary to enſure its ſucceſs. On this account the operation ſhould be delayed longer in an inguinal aneuriſm than in any other.

2dly. The operation of tying the external iliac artery muſt, in the preſent ſtate of our knowledge, be conſidered as very ſerious in its nature, and uncertain in its event. I had then only once tied this veſſel when a man would otherwiſe have bled to death from the femoral artery; and though the limb was nouriſhed, the artery ulcerated. The operation was done a ſecond time in London, and the limb mortified; but no fair practical inference can, I

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am told, be drawn from the latter caſe, as the operation was poſtponed till mortification was as it were impending.

3dly. There is ſome chance in aneuriſms of a cure ſpontaneouſly occurring from the cloſure of the artery above by the coagulation of the blood. To cite thoſe inſtances only which have come within my own knowledge, and which it ſeems right to mention, as it increaſes the ſtock of facts before the public; I have known ſuch a ſpontaneous cure take place twice in the popliteal artery, once in the arteria profunda femoris, and once in the axillary artery. For theſe reaſons it was agreed to poſtpone the operation in the caſe of the preſent patient till circumſtances ſhould appear to demand its performance *.

* There was about twelve months ago a ſoldier in the York hoſpital, who had an aneuriſm of the femoral artery, but the external tumor had ſo much overlapped Poupart's ligament, and interpoſed itſelf between the integuments and the faſcia of the external oblique muſcle, as to render an operation very difficult, if not impoſſible. In this caſe the integuments mortifying, occaſioned a ſimultaneous coagulation of the blood in the artery, for though the coagula came out, yet there was no freſh hæmorrhage, and the patient recovered.

Our

Our poor patient therefore lay in the hoſpital during two months, in which time his diſeaſe gradually increaſed, and his health declined. Towards the latter part of the time he ſuffered a great deal of pain in the front of his thigh, which deprived him of reſt, and the whole limb was largely œdematous. Theſe ſymptoms would naturally ariſe from the preſſure which the aneuriſm muſt make on the anterior nerves and abſorbents of the thigh. The tumor had advanced towards the ſurface, and the ſkin had become ſlightly inflamed, yet the protruding part of the tumour was not of greater extent than when he was firſt admitted into the hoſpital, and no judgment could be formed of that part which was more deeply ſituated, on account of the general ſwelling of the thigh. The blood could even now be expreſſed from the prominent part of the tumour, and I felt anxious, leſt the obſtruction tothe circulation in the main artery ſhould not have been ſufficient to have obliged the blood to circulate by other channels. It deſerves to be remarked, that the aneuriſm may extend conſiderably beneath the faſcia of the thigh, cauſing

cauſing pain and œdema by its preſſure, and yet that part which advances towards the ſurface may be of no great magnitude.

The patient's ſufferings increaſed conſiderably during the week preceding the operation, ſo that he declared his preſent ſtate was almoſt inſupportable, and ſolicited that ſomething might be done to change it either for the better or the worſe. He never, however, was able to explain the cauſe of this uncommon degree of anxiety and inquietude.

The operation was undertaken on Saturday the 24th of October. An inciſion of three inches in length was made through the integuments of the abdomen, beginning a little above Poupart's ligament, and being continued upwards; it was more than half an inch on the outſide of the upper part of the abdominal ring, to avoid the epigaſtric artery. The aponeuroſis of the external oblique muſcle being thus expoſed, was next divided in the direction of the external wound. The lower part of the internal oblique muſcle was thus uncovered, and the finger being introduced

duced below the inferior margin of it and of the tranſverſalis muſcle, they were divided by the crooked biſtoury for about one inch and a half. I now introduced my finger beneath the bag of the peritonæum, and carried it upwards by the ſide of the pſoas muſcle, ſo as to touch the artery about an inch above Poupart's ligament. I took care to diſturb the peritonæum as little as poſſible, detaching it to no greater extent than would ſerve to admit my two fingers to touch the veſſel. The pulſations of the artery made it clearly diſtinguiſhable from the contiguous parts, but I could not get my finger round it with the facility which I expected. This was the only circumſtance which cauſed any delay in the performance of the operation. After ineffectual trials to paſs my finger beneath the artery, I was obliged to make a ſlight inciſion on either ſide of it, in the ſame manner as is neceſſary when it is taken up in the thigh, where the faſcia which binds it down in its ſituation is ſtrong. After this I found no difficulty in paſſing my forefinger beneath the artery, which I drew gently down, ſo as to ſee it behind the

bag

bag of the peritonæum. By means of an eyed probe two ligatures were conveyed round the veſſel; one of theſe was carried upwards as far as the artery had been detached, and the other downwards: they were firmly tied, and the veſſel was divided in the ſpace between them. Nothing further remained than to cloſe the external wound, which was done by one ſuture, and ſome ſtrips of ſticking-plaſter. The threads of the upper ligature were left out of the wound above the ſuture which cloſed its edges, and thoſe of the lower beneath.

A few remarks on this operation may be permitted. To divide the parietes of the abdomen, puſh aſide the peritonæum, and tie the external iliac artery by the ſide of the pſoas muſcle, is an operation more formidable in ſound, and on its firſt propoſition, than it is in reality. It is performed almoſt without ſhedding blood, ſo that the principal circumſtances of it are very evident. When I formerly performed this operation, I was urged to it by immediate neceſſity: I tied the artery much higher than in the preſent caſe, diſturbed

turbed the peritonæum in a greater degree, and, contrary to my own principles, I did not divide the artery. In the preſent caſe, having time to deliberate upon the ſteps of the operation, I detached merely ſo much of the peritonæum as enabled me to reach the artery, as far as I conveniently could above Poupart's ligament; but not ſo far as to make it difficult to aſcertain that I ſurrounded the artery only with my finger, without injuring any of the adjacent parts, nor ſo far but that I could draw down and diſtinguiſh the artery which I included in the ligature. The remembrance of the ſwelling in the external iliac glands, and of the ulceration of the artery in the former caſe, led to this difference of conduct.

The poor man was greatly exhauſted by the operation, and his leg which had been chilled by expoſure during the operation, continued very cold for a long time afterwards. It was wrapped up in flannels, to prevent the diſſipation of its own heat; but I would not apply any artificial warmth to reſtore its temperature leſt it ſhould act as a ſtimulant.

He could not compoſe himſelf after the operation, nor did he ſleep during the night, ſo that on the following day his ſtate was very unpromiſing. His pulſe beat 160 in a minute, his tongue was covered by a dark brown fur; he looked agitated, and a purging took place, which was not reſtrained till the following night by a cordial and opiate mixture. Reſpecting his pulſe, it is proper to mention that it beat 120 moſt days in the week preceding the operation.

His thigh was as warm as that of the ſound ſide, his leg cooler than the oppoſite one, and his foot many degrees colder. He had however perfect ſenſation in his toes, and power of moving them. The leg and foot were rubbed with oil three or four times a day, in order to prevent any ſtagnation in the veins, and to diminiſh perſpiration. It was well covered as before by flannels.

On Monday, the 2d day (Oct. 26.) the pulſe was leſs frequent: he had ſlept a good deal during the night, and ſeemed ſtupified by the opium; but was on the whole ſo little better, that I concluded he would gradually ſink in conſequence

ſequence of the ſhock of the operation. The temperature of the limb was a little increaſed. The man however took bread and milk and other food in moderate quantities, whenever it was offered to him: the purging having ceaſed, the quantity of the opiate was diminiſhed. He rather improved in the evening, and reſted well during the night; ſo that on (Oct. 27.) the third day after that of the operation, every circumſtance wore a favourable aſpect. His pulſe did not exceed 100, and was moderately firm and full; his appetite had increaſed: the temperature of the limb was a good deal augmented, ſo that his foot was ſcarcely colder than that of the ſound ſide; and the œdema of the limb was conſiderably diminiſhed. I now dreſſed his wound, in which he had not complained of pain, nor of any tenderneſs, when the ſurrounding parts were compreſſed. The inciſion appeared but as a line, except at the neighbourhood of the ligatures, where it was a little open, and from whence there iſſued a moderate quantity of as healthy pus as I had ever ſeen. The ſurrounding parts were perfectly natural both in appearance and ſen-

ſation. On the fourth day (Oct. 28.) he was ſtill better: his pulſe 90; his appetite good; his ſleep ſound; and his limb leſſening in ſize, and increaſing in warmth. The ſtudents at the hoſpital had dreſſed the wound before my arrival, and reported that the diſcharge was tinged with blood.

On the fifth day (Oct. 29.), he was ſtill better, his pulſe being but 80 when I counted it. The wound and contiguous parts looked remarkably well, but a bloody ſanies was diſcharged, which I felt unable to account for.

On the ſixth day (Oct. 30.) the ſtate of his health and limb continued as well, if not improving. The bloody diſcharge however had increaſed in quantity, inſomuch that it ran through the coverings of the wound and ſoiled the bed; it had alſo become fœtid. From the firſt occurrence of this bloody diſcharge I felt conſiderable uneaſineſs reſpecting it. I could not believe that a healthy wound would ſecrete ſuch a ſanies, and I felt apprehenſive leſt the wound ſhould ſpread

from

from diſeaſe. Nothing however took place to confirm this idea. It ſeemed probable alſo that if the aneuriſmal ſac were not entire, ſome of the blood being expoſed to the air might tinge the diſcharge from the wound, and grow putrid. I frequently preſſed on the tumour, but could preſs no blood from the wound. In this ſtate of uncertainty it was, however, pleaſing to obſerve, that the patient's health continued in every reſpect better than could reaſonably have been expected.

The circumſtances of the caſe remained very much the ſame during the ſeventh and eighth days after the operation. On the morning of the ninth, (Nov. 2.) when I came to the hoſpital, I met Sir Charles Blicke, who told me that the poor German was dying; intelligence which equally ſurpriſed and ſhocked me.

He was indeed in a dreadful ſtate, appearing like a man far advanced in typhus fever. His pulſe was 150; his tongue covered with a brown fur; his intellect wavering, and the

action of his muſcles tremulous. On examining the wound, with a view to diſcover the cauſe of this great and ſudden alteration, and preſſing on the tumour beneath Poupart's ligament, I forced out a great quantity of blood, rendered fluid and highly fœtid by putrefaction, inſomuch that it inſtantly blackened the probe with which it accidentally came in contact.

The cauſe and circumſtances of the bloody diſcharge were now made clear; the ſurface of the expoſed coagulated blood of the aneuriſm had at firſt tinted the diſcharge from the wound, and then had, by gradual diſſolution, been more plentifully commixed with it, and given it a degree of putridity. Till, however, the whole maſs had become putrid, and had been converted in conſequence into a fluid, it could not be forced out from beneath Poupart's ligament when preſſure was made on the tumour; nor did it till that period excite inflammation in the ſurrounding parts by its acrimony, or derange the conſtitution by its abſorption.

After

After entirely expreſſing the putrid blood I waſhed out the cyſt with warm water, till it returned untinged. The relief which was by theſe means afforded to the poor man was very ſtriking and conſiderable. His pulſe became moderate, his intellect clear; he had ſome refreſhing ſleep, and again took food in moderate quantities. On the following day, when the integuments beneath Poupart's ligament were compreſſed, a conſiderable quantity of fœtid diſcharge and air were forced out. It was not however at all tinged with blood, and appeared to me to be merely the ſecretion from the cyſt which had contained the blood. I directed that this diſcharge ſhould be preſſed out, the cavity ſyringed, and a poultice applied three times a day; but finding a conſiderable quantity of fetid fluid ſtill lodged in the cyſt, I thought it right to make an opening into it beneath Poupart's ligament, to afford it a more ready exit. No abatement in the quantity, or alteration in the quality of the diſcharge, was however remarked; it ſeemed to be ſuch as a ſloughing ſore commonly furniſhes.

This fever came on on the evening of the

eighth day (Nov. 1.) after that of the operation; and I am convinced it would have ſpeedily deſtroyed the patient, had not the cauſe been detected and removed. The powers of his conſtitution rallied again; his pulſe was firm, and often not more than 100; he took ſufficient food, and ſlept moderately well. But the part, as has been ſaid, did not go on well, and ſeemed to prevent any increaſe of ſtrength. For a week I was not without hopes that ſome favourable change might happen, but afterwards I loſt all ſuch expectations, as his already much reduced powers were ſtill further declining; nevertheleſs, he held out more than another week, when he died on November 16, the twenty-third day after the operation. A few days before his death both ligatures came away with the dreſſings.

Diſſection.

A very ſlight adheſion had taken place between the ſigmoid flexure of the colon and that part of the peritonæum which was oppoſite to the wound, but there was no other appearance of that membrane, or of the bowels,

bowels, having ſuffered any inflammation in conſequence of the operation. The peritonæum was ſeparated from the loins, and from the poſterior half of the left ſide of the diaphragm, by a conſiderable collection of blood, which extended downwards to Poupart's ligament, and communicated under that ligament by a ſmall aperture with the aneuriſmal ſac. This opening was ſituated in the direction of that crevice which is found between the internal iliac and pſoas muſcles. The only rational explanation that can be given of the formation of this collection is, that the blood had burſt its way from the aneuriſmal ſac in the vacancy between the muſcles juſt mentioned; after which it would readily and extenſively ſeparate the peritonæum in the manner deſcribed. I am inclined to attribute to this circumſtance the undefinable diſturbance of health which the poor patient ſuffered during the week preceding the operation. It may, perhaps, excite ſurpriſe that this collection did not become putrid.

No particular account can be given of the aneuriſmal ſac beneath Poupart's ligament, ſince

ſince it and the contiguous parts had ſloughed in conſequence of the irritation of the putrid blood. A ſmall aperture had been made by this ſloughing in the front of the orbicular ligament of the hip joint, and a ſmall extent of the thigh bone was, by the ſame cauſe, deprived of its perioſteum.

A bougie was paſſed from the lower end of the femoral artery into the ſac.

The extremities of the external iliac artery, which had been divided in the operation, were united together by a firm new-formed ſubſtance; the ſides of each extremity were perfectly cloſed, and a ſmall plug of coagulated blood was found in each.

Having thus given as brief an account as I am able of the circumſtances of this caſe, as they appeared to me, I cannot conclude without mentioning the obſervations of others, particularly as they may aſſiſt in ſuggeſting rules of conduct for future operations on ſimilar caſes. It has been ſaid that the irritation of the aneuriſmal bag was pro-

probably a ſpontaneous occurrence, and not the effect of the acrimony of the putrid blood. But the ſuddenneſs of this attack, the manifeſt exiſtence of a cauſe ſufficient to produce it, and the total abſence of ſuch an occurrence in all other caſes of aneuriſm, render this ſuppoſition highly improbable.

It has alſo been imagined that part of the diſcharged blood might have returned from the lower end of the artery. This latter opinion is very improbable, ſince, after the complete removal of the blood, none returned by that channel: and in the firſt caſe which I have related, none returned by the inferior part of the artery, though the area of it was ſtill of its natural dimenſions, and unobſtructed. This latter obſervation had tended to diminiſh my confidence in the powers of the communicating channels, and made me wiſh to defer the performance of the operation as long as poſſible. It ſeems evident that in the preſent inſtance it was too long delayed.

It would be deſirable in future to perform the operation before an extenſive diffuſion of

blood had taken place; indeed, could the adequateneſs of the collateral arteries for the ſupply of the limb be eſtabliſhed, it would be proper to operate at an early period of the diſeaſe.

It deſerves to be conſidered whether, in caſes where it is probable the blood is become diffuſed, it might not be right at the time of the operation to open the aneuriſmal bag, and remove the blood. I ſhould, however, be inclined to poſtpone this attempt; for, perhaps, no neceſſity might exiſt, as putrefaction might not take place. A few days will determine the degree of life of the limb, and would make a wound leſs likely to ulcerate or ſlough. Should ſigns of the putrefaction of the blood enſue, or the probability of ſuch an occurrence become evident, I ſhould think it neceſſary to make a ſmall opening into the aneuriſmal bag for the removal of the contained blood. This being done, if no blood came from the lower orifice of the artery, there would be no neceſſity for tying it.

CASE III.

Jane Field, aged 40, who had been in the habit of drinking to excefs, was admitted into St. Bartholomew's Hofpital, with a very large femoral aneurifm, reaching as high as Poupart's ligament. The whole limb was œdematous, but in no very conſiderable degree. She was quite incapable of uſing the leaſt exerciſe, or of ſitting upright; and, even in bed, ſhe ſuffered continual pain, which was much aggravated during the pulſation of the aneuriſm. The pain was ſo violent as to preclude ſleep. She had no appetite; her pulſe was feeble and frequent, generally exceeding 100; but her tongue was not furred; and her bowels were regular.

On Saturday, 11th October, 1806, the operation was performed in the ſame manner as in the laſt caſe. An inciſion, about three inches in length, was made through the integuments of the abdomen, in the direction of the artery, beginning juſt above Poupart's ligament. Having divided the ſkin and aponeuroſis of the external oblique muſcle, I introduced

troduced my finger between the margin of the internal oblique and tranſverſe muſcles and the peritonæum. I then divided their lower edges upwards, in the direction of the external wound, to the extent of an inch and a half, with a probe-pointed biſtoury. Having thus made room for the admiſſion of my finger, I put it down upon the artery, felt its pulſations, and gently inſinuated it beneath the veſſel; and then, with the aneuriſmal needle, paſſed under it two moderately thick ligatures, carrying them upwards and downwards, as far as the detachment of the artery permitted, and tying them as firmly as I could. I next divided the artery in the interval, but much nearer to the lower ligature than to the upper one. The wound was afterwards cloſed, in the middle by a ligature, and in other parts by ſticking-plaſter. Upon removing the patient to bed, ſhe complained of great pain in the wound, and in her head; and was very reſtleſs and ungovernable. She wiſhed for ſomething to procure ſleep, and I gave her twenty-five drops of laudanum. This, inſtead of having the deſired effect, made her much more reſtleſs; ſhe was continually changing

changing her poſition in bed, and complaining of violent headach. At night ſhe became more tranquil. The one foot was much colder than the other; but the limbs at the knees were nearly of an equal temperature.

Sunday, 12th, I viſited her early in the morning, and found that ſhe had been moderately quiet during the night; that ſhe had ſuffered much pain in her foot, but none in the wound. The pain in the limb ſhe deſcribed as having firſt attacked the thigh, next the leg, and afterwards the foot, which laſt pain had now ceaſed. The foot was warmer than it was the preceding evening, and in a ſtate of perſpiration: it was four degrees of heat lower, by Fahrenheit's ſcale, than that of the healthy limb. The ſuperficial veins of the leg were filled with blood. Her pulſe was 96. She had no appetite. I left her with a promiſe to viſit her again at night, recommending her to lie quiet, and take ſome ſimple nouriſhment. About noon, one of the dreſſers, obſerving that her ſkin was hot, and the tongue dry, gave her ſome

ſaline

ſaline medicine, with a ſmall quantity of antimonial wine, which occaſioned vomiting, and ſuch continued nauſea, that ſhe refuſed all kinds of food. The limb, at night, continued in the ſame ſtate as in the morning. She was free from pain; her pulſe 120. As ſhe was without an evacuation, I gave her a pill, containing two and a half grains of *pil. aloet. e myrrh.* with the ſame quantity of extract of colocynth, ordering it to be repeated in the morning, if neceſſary.

Monday, 13th. The foot was nearly of the ſame temperature with the other. She had had two ſtools, and felt much more comfortable. Still, however, ſhe had an averſion to all kinds of nouriſhment. Her pulſe was 150 and 160, at different times of the day. I may here mention, that every ſubſequent day, ſhe had one or more ſtools, without having recourſe to opening medicine; and whenever ſhe was more irritable or diſturbed than uſual, ſhe had a tendency to purging. In the evening of this day, I inquired if ſhe had a wiſh for any particular kind of nouriſhment; and, at her ſuggeſtion, gave her half

a pint of porter, with ſome ginger and toaſted bread. This ſeemed to agree with her ſtomach, as ſhe ſlept the whole night, and awoke much refreſhed the next morning. Her tongue was then clean; ſhe took ſome tea and muffin for breakfaſt, and broth and bread, in moderate quantities, in the courſe of the day. Half a pint of porter was allowed her at dinner and ſupper. Her pulſe this day (Tueſday) was 95. The foot warmer than the other. The wound was dreſſed for the firſt time; it appeared well cloſed, and diſcharged but little. Wedneſday, pulſe about the ſame number; had ſlept during the night, but not ſo ſoundly as on the preceding one. The wound and contiguous parts were tender; there was a conſiderable diſcharge, which was fetid; the lower ligature came off the artery. The artery, as I have mentioned, was divided very near to the lower ligature; and it is probable, that, in the reſtleſſneſs of the patient ſubſequent to the operation, the motions of the limb had drawn the artery from out of the ligature *.

Thurſday,

* I have never made uſe of the expedient ſuggeſted by Mr. Henry Cline, for ſecuring ligatures upon arteries

Thurſday, The wound very tender, and the ſkin had inflamed very much; pulſe 84.

Friday; The diſcharge from the wound leſs in quantity, and more puriform; pulſe the ſame in number, but very feeble.

Saturday, The patient had been ſeized in the middle of the night with ſevere headach and ſhivering, and in the morning ſhe could eat no breakfaſt. Her tongue was rather dry, and ſlightly covered with a brown fur;

ſince I never felt its neceſſity; and becauſe I have always thought it right to tie a large artery with ſo thick a ligature, that it would have been unſuitable to the practice which he has recommended. One advantage ariſing from tying a large artery with a thick ligature is, that it may be drawn as tight as poſſible, without apprenhenſion of cutting the veſſel, or of its ſpeedily coming off from it. Should I, in any future inſtance, think it right to oppoſe any mechanical obſtacle to the ligature's coming off the veſſel which it encircles, I ſhould do it in the following manner. Having tied a large knot at one end of a ſmall thread, I would paſs it, by means of a common ſewing needle, through the middle of the artery, in front of the ligature which encircles it; I would then form a ſecond thick knot on the thread, cloſe upon the ſurface of the veſſel. Theſe two knots would, I think, preſent a conſiderable obſtacle to the ſlipping of the circular ligature from off the end of the artery.

pulſe

pulſe 95, and feeble. Half a pint of wine was allowed her in ſago, in addition to the porter; and ſhe took the *infus. menth. vitriol.* of the hoſpital, with ſome tincture of gentian.

Sunday, She was much better; tongue moiſt and clean, and her appetite much improved. She diſliked the bitterneſs of the medicine, peppermint-water was therefore ſubſtituted for the common mint-water, and the tincture of gentian was omitted; pulſe 82; ſkin cool.

Monday, In the ſame ſtate as yeſterday; granulations appeared in the wound below the ligature, which cloſed it in the middle. This part of the wound is now about an inch in breadth, and a third more in length. The wound above the ligature about one fourth of an inch acroſs; and the new fleſh, by which it is united, of a tawny colour, and flabby texture. The ſurface of the ſkin, to a conſiderable extent from the wound, red and excoriated.

Tueſday, She had a return of headach, with loſs of appetite; her pulſe 96. There flowed from the wound a conſiderable diſcharge, of an offenſive ſmell, and ſeemingly irritating to the ſkin over which it paſſed. She complained of having had a reſtleſs night; and obſerved that, in general, ſhe found herſelf well or ill, as the preceding night had paſſed comfortably or otherwiſe. Thinking it probable that the irritable ſtate of the wound might contribute, in a great meaſure, to prevent her from ſleeping, I dreſſed it with an aqueous ſolution of opium, and ſmeared the excoriated ſkin with lard, to prevent the acrimonious diſcharge from affecting it. All appearance of granulations in the wound had vaniſhed. I ordered her fifteen drops of laudanum in her night draught; and, inſtead of the *infus. menth. vitriol.* I gave her *decoct. cinchon.* ℥ij, with ʒj of *tinct. card. comp.* every four hours.

Wedneſday, She had a comfortable night, with much ſleep; her pulſe 80. The wound greatly amended. The diſcharge puriform, leſs fetid, and ſmaller in quantity. The new

fleſh

fleſh above the ligature florid; and granulations appeared again on the ſides of the wound, below the ligature. The ſame treatment was continued.

Thurſday, She had not reſted ſo well, and complained of headach. The wound, however, was rather better than on the preceding day. I cut out the ligature which cloſed the wound in the middle, thinking it might tend to keep up irritation. She attributed the pain in her head to the opium ſhe had taken; to aſcertain this point, I ordered the doſe to be increaſed to twenty-five drops.

Friday, She had ſlept well, and was free from headach; her pulſe under 80. This day, the ligature, from the upper part of the artery, came away with the dreſſings. The excoriated ſkin had healed; the redneſs was inconſiderable. The wound, in every part, had a healing appearance. It ſeems unneceſſary to detail particularly the ſubſequent part of the caſe. She was kept in bed to the end of the third week, when ſhe was allowed to ſit up, that her bed might be made. I

thought this caution requiſite, from knowing that ligatures are detached from arteries before the ſides of the veſſel are united. I alſo confined her to bed during the whole of the fourth week; but adviſed her to move the limb about frequently. The wound healed like a healthy wound; and was nearly cloſed in a month after the operation. During the third week, when the wound no longer proved a ſource of irritation, her pulſe did not exceed 75 ſtrokes in a minute; it was generally lower, and once I found it to be only 68. At the expiration of the month, ſhe got up daily, and walked about the ward; although, on her admiſſion into the hoſpital, ſhe was incapable of walking at all. There was not the leaſt œdema of the limb. Its circumference, at the calf, was but one third of an inch leſs than the oppoſite ſide. Having walked many times the length of the ward, ſhe became tired, and thought that the limb which had been operated on, felt more fatigued than the other. The aneuriſmal tumour remains at this time of a conſiderable ſize. It is certainly more than one third leſs than at the time of the operation. I have related

the

the caſe thus particularly, in order that the reader may judge of it for himſelf. To me it appears, from this and the former caſes, that, in an advanced ſtate of femoral aneuriſm, the artery may be tied above Poupart's ligament, with as little detriment to the circulation of the limb, as in other caſes of aneuriſm, where the operation is attended with very conſtant ſucceſs. The ſymptoms immediately ſubſequent to the operation, appear to me to have ariſen entirely from the irritable and weak ſtate of the patient. She had pain in the head from the operation; and ſo ſhe had afterwards, whenever her health was diſordered by irritation. Her pulſe, prior to her taking the medicine which acted as an emetic, was 96; but the ſubſequent day it was 150 or 160. This appears to be the reſult of the ſtate of the ſtomach, for that becoming tranquil, the pulſe was again reduced to 95 or 96. In a conſtitution ſo weak and irritable, a wound was not likely to heal kindly; and all the ſubſequent circumſtances of the caſe are ſatisfactorily explained, as the effects of an irritable wound, acting upon an irritable conſti-

tution. Upon the wound becoming healthy, at the expiration of a fortnight, all variations of the conſtitution ceaſed. I cannot, therefore, but conſider the perplexing circumſtances that ſucceeded the operation, as the effect of the patient's peculiarity of conſtitution, and not as ariſing from the operation itſelf, or from the ſtate of the limb conſequent to ſuch an operation. A ſimilar operation has lately been performed by Mr. Frere, of Birmingham, with ſucceſs. The patient being healthy; the wound healed without difficulty.

Mr. Tomlinſon, of Birmingham alſo, performed a ſimilar operation with equal ſucceſs, ſo that it ſeems proved that the external iliac artery may be tied, in the caſe of a femoral aneuriſm, with as little detriment to the limb, as occurs from tying the femoral artery in a caſe of popliteal aneuriſm. I lately ſaw the woman who was the ſubject of the laſt caſe which I have related, and there is no diſtinguiſhable difference in the ſize or ſtrength of the two extremities.

CASE

CASE IV.

J. Peterſon, a Swediſh ſailor, about forty years of age, was admitted into St. Bartholomew's hoſpital, on account of an aneuriſm of the femoral artery, juſt below the groin. He was a thin man, but had ſtrong muſcles. He had a languid appearance; and his pulſe was ſmall and feeble; his appetite, according to his report, moderate, and bowels regular; his tongue, however, was much furred. As the upper and moſt prominent part of the aneuriſmal tumour was aſcending above Poupart's ligament, ſo as to make it probable, that if it increaſed it might overlap the ligament, and render the operation difficult, delay was inadmiſſible, and the operation was performed on Saturday, 25th February, 1809. It was accompliſhed as in the preceding caſe. I put my finger behind the peritonæum, and clearly diſtinguiſhed the cylindrical form, and firmneſs of the artery; but I could not perceive its pulſation. I preſſed on the veſſel, and the beating of the aneuriſm ceaſed; I remitted the preſſure, and it was renewed. Having thus aſcertained

that I had my finger upon the artery I tried to ſeparate it, ſo as get my finger round it; but I could not ſucceed. I then tried with the point of the aneuriſm needle, carrying it cloſe to the artery from without, towards the cavity of the pelvis; but the veſſel yielded ſo conſiderably, that I did not accompliſh it. I tried in a contrary direction, and though the artery receded from its ſituation, as I think, fully half an inch; yet by perſeverance I accompliſhed my purpoſe. I then paſſed another aneuriſmal needle, threaded with a double ligature, through the track that I had made, and tied each ligature firmly. I have related theſe circumſtances, that the reader may know why the artery was not tied as it was in the preceding caſe. I could not bring the artery into view. I might have done ſo lower down nearer to Poupart's ligament; but the apprehenſion of producing any communication between the air and the blood of the aneuriſmal bag, which might occaſion its putrefaction, made me tie the artery at ſome diſtance above the ligament. The receſſion of the artery in this caſe, before the preſſure made

made by the aneuriſmal needle, was ſo conſiderable as to excite my ſurpriſe.

The patient lay upon his ſide with his thigh bent upon the pelvis, and for the firſt three days after the operation without pain, or any apparent diſturbance of his conſtitution. He was fed with bread and tea, and bread and broth, and his bowels were regular. The wound ſeemed cloſed by adheſion, except at its lower part, where the ligatures came out. On the fourth night, he was ſeized with violent and diſtreſſing pain in the epigaſtric region, and on the left ſide of his cheſt; he had not the leaſt ſleep, and felt very anxious, and diſturbed. His pulſe beat the next day 130 in a minute; his ſkin was hot and dry, his face fluſhed, and his tongue covered with a dry brown cruſt. Two grains of calomel were given to him, and efferveſcing ſaline draughts were taken every four hours. The calomel produced a purging ſtool during the night, which had not a drop of bile in it. The following day his pulſe exceeded 100 only by a few ſtrokes, his ſkin felt temperate, his tongue was moiſt,

and not ſo brown or incruſted. His pain, alſo, was much diminiſhed, though the epigaſtric region was ſtill tender. His ſaline draughts were continued, and he was directed to take five grains of the pilul. hydrarg. each night. The next day he was ſtill better; his pulſe 90, his ſkin moiſt, and his tongue cleaner; he took food without diſguſt, though not with much appetite. As he had no evacuation from his bowels, a little opening electuary was given him, and the ſaline draughts were changed for the infus. menth. vitriol. with a little tinct. cardam. He had a ſtool in the night, which was of a light ochre colour; that is, a light brown, which dilution would not convert into a yellow. He continued the ſame medicines till the tenth day after the operation, with an evident amendment in his health; though the alvine diſcharges which we contrived to procure daily, were ſtill of the colour above deſcribed, though ſomewhat deeper.

On the tenth day, after obſerving his tongue and pulſe, &c. thoſe who ſaw him, joined with me in opinion, that he was in better

better health than when he was admitted into the hoſpital.

During this conſtitutional diſturbance, the upper part of the wound became open, and the diſcharge was offenſive and irritating, and excoriated the ſkin over which it flowed. I therefore greazed it with freſh lard at each dreſſing, to prevent as much as poſſible the diſcharge from acting upon it. Some ſwelling of the parts on that ſide of the wound next the ilium alſo took place. Still there was nothing very materially wrong, and the ſtate of the wound gradually amended as the patient's health became tranquil.

On the tenth day, the ligatures came away, and then the patient firſt complained of a pain on the inſide of his thigh, juſt above his knee.

On the 11th day he repeated his complaints, and ſaid that the pain diſturbed him, and prevented his ſleeping during the night. I knew not to what to attribute it; I thought it might indicate ſome irritation of the

the anterior crural nerve; however as the patient remained pretty well, I gave no directions reſpecting it.

On the 12th day, when I viſited the patient, I was ſhocked at his appearance. His countenance expreſſed great anxiety and deſpondency; and his pulſe was more than 120. His tongue was covered with a brown fur. He had miſſed his regular evacuation from the bowels. Being clear that the calomel had been of eſſential ſervice before, I gave him two grains of that medicine, and ordered again the effervеſcing draughts.

On the 13th day, he was no better; but more languid. The calomel had produced two copious looſe ſtools, ſcarcely tinted with an ochre colour. I requeſted Dr. Roberts to ſee him, who directed him to take a grain of opium at night; ordered him ſago and wine for food; and the infuſion of carcarilla with tinct. of columbo.

Fourteenth day, he neither ſeemed better nor worſe; he had ſlept four hours in the night

night. A ſlight bluſh of the ſkin appeared on the inſide of the thigh, ſuch as indicates inflammation of the abſorbing veſſels. Fomentations and poultice were directed to this part. Dr. R. alſo ordered half a grain of calomel, with five of cicuta, to be taken night and morning.

Fifteenth day, He was conſiderably better, though his leg continued painful; the pain however was diminiſhed. He was directed to continue the ſame medicines; and to inſure a good night, if one grain of opium failed to give him reſt, he was allowed to take another after four hours.

Sixteenth day, Not quite ſo well. He had had no evacuation for the laſt twenty-four hours. He took a little opening electuary.

Seventeenth day, He had a ſtool during the night, and was better. His thigh was œdematous but not painful. The pain was deſcending towards his ancle. Dr. Roberts wiſhed him to take the blue pill in preference to the calomel. Five grains were therefore given each night.

Eigh-

Eighteenth day, He was better, and continued gradually to improve till the twenty-fourth day, when he declared he felt quite well, and had had ſix hours comfortable ſleep. The colour of the ſtools had been gradually improving, and on that day, when ſuch a marked amendment took place, the ſtool might be ſaid to be nearly properly tinctured with bile, and of a proper conſiſtence.

During this time an abſceſs had formed on the inſide of the thigh, a little above the knee, where the abſorbents of the limb began to inflame, and the matter had been diſcharged by a puncture made with a lancet. Swelling in the ham likewiſe took place, and was apparently cauſed by the irritation of the abſorbents in that part, but no matter formed in it, and the leg alſo became œdematous. The wound made by the operation had healed firmly and all tumefaction about it had ſubſided. As the patient's bowels acted regularly, no medicines were now given him.

After about a week had elapſed, he was ſeized as before with pain in the epigaſtric region.

region, rheumatiſm in the right ſhoulder, and inability to move the right arm. His countenance again expreſſed deſpondency and diſturbance; his pulſe was frequent and his ſkin hot; the abſceſs alſo was painful and diſcharged copiouſly, and became diſtended with matter, ſo that it ſeemed neceſſary to enlarge the aperture, which had nearly healed. His tongue was much furred, and his ſtools had no bile in them.

He again took calomel at firſt, and afterwards the pilul: hydrarg: and the ſecretion of bile was gradually renewed and increaſed, as in the preceding inſtances, which produced a proportionate amendment in his general health. His limb alſo was ſo much improved as to enable him to walk about the ward, and to go out occaſionally into the air.

Believing that living in a better air would greatly contribute to the reſtoration of his health, he was ſoon afterwards diſcharged from the hoſpital; looking as well as he did on his admiſſion, and capable of walking with but little infirmity. He was adviſed to take the pilul: hydrarg: every ſecond night, till the

ſecretion of bile was right, and to take them afterwards whenever he perceived it to be deficient or faulty. He was alſo enjoined to keep his bowels regular in other reſpects.

The caſes which I have related and referred to ſhew that the current of blood through the external iliac artery may be ſtopped, without occaſioning any material, or even evident diminution of the powers of the limb. It alſo appears to me that this operation does not diſturb the conſtitution, in a greater degree, than a ſimilar one performed upon arteries of leſs magnitude. It is true, that conſiderable diſorder of the conſtitution took place in the caſes which I have related, but it ſeemed to have ariſen from the peculiarities of the ſtate of health of the patients, and not as a neceſſary conſequence of the operation. In the laſt caſe, every thing went on favourably till a diſorder of the digeſtive organs occurred. To ſuch diſorder, it cannot be doubted that there was a ſtrong predispoſition; and of which, the operation by its effects on the mind as well as the body, confinement in an hoſpital, and great altera-

tion

tion of diet may be conſidered as the exciting cauſes. I think it probable that the ſtate of the conſtitution might have greatly contributed to produce the general irritation of the abſorbents of the limb, which was firſt obſerved on the day when the ligatures came away. I cannot doubt but that the inflammation of theſe veſſels did, as indeed it generally does, greatly diſturb the conſtitution and aggravate its diſordered ſtate. Theſe conjectures appear to me to be verifid by the laſt occurrence which I have related. When the wound was healed, and the limb ſo well as that it probably could impart no irritation to the general ſyſtem, from leaving off the mercurial medicine, diſorder of the digeſtive organs recurred and produced the effects which I have deſcribed.

That the femoral aneuriſm, when it occurs near to the groin, may, like other aneuriſms, ſometimes be cured by the proceſſes of nature, is proved by experience; yet this is not likely to be the common event of ſuch caſes. I knew two inſtances of patients dying of hæmorrhage from

from ſuch aneuriſms. The ſufferings both of body and mind, in theſe caſes, were ſhocking. The patients were unable to move, and the diſtenſion of the integuments, and preſſure on the nerves occaſioned great pain and irritation. The patients alſo lay apprehenſive and uncertain of the hour when their ſufferings might be terminated by a fearful and fatal hæmorrhage. I think myſelf therefore fortunate that I was firſt, as it were, compelled to perform an operation, which I truſt, may be found to diminiſh the ſufferings, and preſerve the lives of thoſe afflicted with this diſeaſe.

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