Farther remarks on hernia, in explanation of the nature of strangulation, and of obliterated intestine, and in defence of views and suggestions towards improvement in the treatment / by E. Geoghegan, in a letter to John Abernethy.

With the Author's compliments.

FARTHER REMARKS

ON

HERNIA,

IN EXPLANATION OF THE NATURE OF

STRANGULATION,

AND OF

OBLITERATED INTESTINE,

AND IN DEFENCE OF VIEWS AND SUGGESTIONS

TOWARDS IMPROVEMENT IN THE TREATMENT.

BY E. GEOGHEGAN, M. R. C. S.

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IN A LETTER TO

JOHN ABERNETHY, ESQ.

DUBLIN:

SOLD BY CALLOW AND WILSON, PRINCES' STREET, SOHO, LONDON.—HODGES AND M'ARTHUR, DUBLIN.

HAVING read an interesting communication in the London Medical Repository of November last, from Dr. Bishop, of Thornby, in Northamptonshire; headed "On the extraordinary Obliteration of the Canal of the Strangulated portion of Intestine, which has occasionally been produced by adhesive inflammation of its mucous membrane, in Inguinal Hernia;" and the author having noticed my anticipation of such an affection, in publications on Hernia, and requested farther observations of mine in illustration of this hitherto unobserved morbid condition, I attempt the explanation desired, in the following pages, which I sent to the publishers of the Repository early in February, considering it an eligible and indeed the proper channel of communication, under the circumstances; I am disappointed at the article being unnoticed and unpublished; however the present copy is more perfect, and I trust will satisfy Dr. Bishop, and those of kindred zeal.

ON STRANGULATED HERNIA,

AND

OBLITERATED INTESTINE.

To John Abernethy, Esq.

DEAR SIR,

I take the liberty of again requesting your attention to the subject I submitted to you in the Edinburgh Medical Journal some time back; the intricacies in which it seems involved, invite the inquiries of a master of his art. I consider strangulation to consist in an impervious gut, *pro tempore*, caused by inflammation, confining the contents, which being highly pungent and stagnant, greatly aggravate the symptoms. The usual treatment of pressing the tumour so inflamed against stiff tendinous bor-

ders, to force it through their too narrow aperture, irritates the gut so to favour derangement of structure, producing the adhesive processby coagulable lymph or ulceration, thus effecting *permanent* obliteration of the tube, when this state has contined long. Dr. Bishop treated a strangulated hernia three days; on the fourth he operated so as perfectly to fulfill the curative intention, after twenty hours violent pain, the termination was fatal; examination post mortem discovered the *returned* hernia *impervious* one inch and half in length, the portion which had been within the aperture pending the strangulation. Surprised at this, as was Dr. Arnauld who assisted him, he related the case to Sir A. Cooper, to whom it was eqnally *novel*, strong evidence of its being nnknown to Surgery, and ample excuse for me, were I to grant that I required any for not having adduced post mortem facts to confirm my statements, as remarked by Dr. Bishop and by the able Editor of the Medico Chirurgical Review; but as I never pursue the usual treatment, such an instance could not have occurred to me, my practice is designed to ascertain and to prevent the impervious state, aware that replacement of the gut so closed up must prove fatal; my statements often made to this effect were inductions from facts and from the phenomena of the disease. as I had observed them, and the records of practice exhibited them. Dr. Heberden in his Commentaries, mentions the gut perfectly obliterated in cases of Ileus—the Edinburgh Medical Essays has one of a man 70 years old, who had an hernia, was seized by vomiting, fetid excrements, no stools for many days, the hernia not then outside—on examination post mortem, the passage at the valve of the colon was shut up, and two inches breadth of the gut degenerated into an hard solid substance. The same work has a case in which the

sides of the os uteri were grown together firmly, discovered whilst the woman was in labour of her second child. The Transactions for Medical and Surgical Knowledge, has a case from Sir Edward Home, in which two inches and a half of strangulated portion of Ileum had an inflammatory exudation of coagulable lymph, adhering to different parts of its internal surface, which was extremely vascular.

We know that a tendency to adhesion of mucous surfaces is observed in the nose, mouth, cisophagus, thoracic viscera, intestines, and urethra of some; in those there is no irritation from rigid sharp tendens; is it not reasonable then to expect in cases of local inflammation and also irritation by a Surgeon exerting force against an inflamed and inflated portion of intestine, in immediate contact with a tendinous border, nay in femoral hernia with bone too, that the adhesive process would take place sometimes, and certainly in an individual præ-disposed to it. One would think that the experiments and observations of John Hunter, together with the facts recited, were conclusive on this point, and warranted my anticipation of such a result as Dr. Bishop discovered, although I had not, as I could not adduce, post mortem facts of my own, as evidence of it; the fact of obliteration of the calibre within the tendinous aperture, and its novelty to Sir A. Cooper himself, who has been so elaborate on the subject, indisputably demonstrate the justness of my doctrine, and the error of those who impugn it. Here I take leave to examine a passage in Sir Astley's Lecture on Hernia, as reported correctly, I am satisfied, in the Lancet, February, 1824, he says "that cold applications are useful in removing strangulation, and gives instances

of their success, but that it is an absurdity to attribute this to diminishing the volume of air, and that if cold had such a power, it would do no good, nothing could be gained by it, that the principle is erroneous, diminishing can do no good, whilst *pressure* is the same, it is of no use to empty the gut of its contents, &c. &c." To these remarks I oppose the following:—The late Mr. Alex. Munro, in the Edinburgh Medical Essays, contends that the volume of air is the chief impediment to removing strangulation, and forbade warmth as calculated to encrease it; he quotes Dr. Huxham, who saw an enormous encrease of distension, owing to warm applications. Am I to insist in opposition to Sir A. Cooper, that cold has the power of diminishing a volume of warm air, and that diminishing whatever is morbidly enlarged can do good, and is the *sine qua non* in hernia, and that the *pressure* he mentions arises, from a recent tumefaction pressing, because enlarged against the edges of an unyielding ring, which is too small to contain it, and which part lay at ease within it, until the tumefaction occurred by the distension of air, can we lessen the pressure here, but by diminishing; on what ground can it be said that the principle is erroneous, absurd, &c.? The luminous John Bell arranged as parallel cases, laborious child-birth, distended urinary bladder, and strangulated hernia; the analogy, he observes, "is striking and illustrative." Surely when too large an head is the cause in the first, fatality can be prevented only, by emptying it of the contents, in the next the same, and in the last also; the contents of the two last encrease momentarily in pungency, still further requiring exit. About two years back, I removed a recent strangulation, by gently pressing out the contents, instant relief followed; Mr. Graves, an experienced Apothecary,

was present, and felt the flaccid gut outside, after which it returned. In another case, attended with violent symptoms for many hours, Dr. M'Kever, who was educated a Surgeon, witnessed the same. On the 3d of November last, an elderly female laboured under strangulation at the navel about 50 hours, which resisted the usual treatment, vomiting, fœtid matter, was constant; a gentle effort by the taxis gave great pain, and operation by the knife seemed the only remedy. Mr. M'Dowel saw her early in the morning first time; I met him and Mr. Adams at mid-day, both Surgeons of the best acquirements; I removed the strangulation in their presence, as in the other cases, in about 15 minutes, on the contents receding, the pain abated; after a few hours a fœtid stool passed, and recovery was complete, the pain attending the successful attempt was trifling.

The authorities, arguments, and facts stated, I hope will convince Sir A. Cooper, that the principle and practice he impugns, are better founded than he imagined, and that if, as he observed, he suffers such a calamity, which I hope may never happen, he will avoid the practice he proposes for himself, namely, in the first instance the taxis for about 15 minutes, then bleeding, tobacco enema, and if they fail, operation speedily, and that he will reverse the order of proceeding, and defer the taxis until bleeding and the enema had been used, then danger from handling will be lessened, and we know that the taxis encreases inflammation when it fails; he would be still safer, I am satisfied, were cold applied first for an hour, it evidently controls inflammatory action, and abates sensibility, very material preparation for manipulation, and for the ulterior operation. When cold

succeeds the tumefaction disappears as per saltem with (a hissing noise caused by exit of the contents,) not paullatim as the fingers are erroneously employed to accomplish. It is evident that the crudite Monro and Huxham, held the theory, I maintain, as to distension by air, the use of cold, &c. and that John Bell, whose works evince the visus eruditus in a degree equalled by very few, having strongly marked the analogy between strangulated hernia and other ailments which were curable only on the principle I advocate, supports my practice, and all are opposed on these points to Sir A. Cooper, whose labours I respect, and whose character I highly esteem. To the zeal and sagacity of Dr. Bishop, the cause of humanity and science are deeply indebted, for discovering, and ardently investigating, a valuable and instructive fact, which must light the way to improved treatment hitherto unsuccessfully advocated by me. Dr. Bishop treated the case in the most approved manner, and like the scientific mariner, found and marked the rock to be avoided. For a fuller explanation of my views of the disease and plan of treatment, I refer to my pamphlet, requesting indulgence for the manner, but not for the matter; the former betrays carelessness and haste, the latter is the result of much observation and reflection: I have defended it in the Edinburgh Medical Journal, 7th vol. 1811, which article I annex, as it shews much of my original views and treatment; am desirous that the argument be patiently examined, as it has been generally objected to, but never refuted; it is on practical points I insist, which it were unfeeling to suppress, where difficulty and danger so imminently prevail; they are it appears, at variance with the course advised by our

ablest practitioners, but I am satisfied that they are based on sound principles, and must ultimately prevail.

* In the original publication I have quoted verbatim the advice of Munro, Pott, Bell, Cooper, and Lawrence, on the taxis in strangulated hernia, a manipulation as described by them, in my judgment not adapted to the cure of the disease on principle, and calculated to aggravate it, to a dangerous extent, indeed so as to occasion the obliteration we have been discussing.

I am,

With high respect and regard,

Your obedient Servant,

EDWARD GEOGHEGAN.

Dublin, 1826.

* The following experiment will shew how the taxis works:—Put a fold of intestine through a ring—inflate it, and impede the circulation of the contained fluid. In this state press it in any direction, and yield as it will, the bulk must remain the same, and hinder its passing through the ring whilst the air is confined, and every impulsion by the hand will occasion pressure, and rather overlapping at the ring than passage through it, but diminish it by removing the air, and all difficulty will be removed.

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From Edinburgh Journal,

1811.

A gentleman, advanced in years, who had a reducible hernia 30 years, was suddenly seized with the symptoms of strangulation whilst walking the street. After about two hours I saw him. There was a large portion of intestine in the scrotum, and great tension and pain at the ring. I endeavoured, by the application of cold water and ice, to lessen the size of the tumefied parts, avoiding the taxis. Having pursued this plan an hour without success, and finding that the sensibility of the part had decreased, I then made a trial with my hands to press out the contents, but their passage was interrupted. The general distress increasing, eight ounces of blood were taken from the arm, a purgative glyster was administered, and, after some fæces were discharged, a weak infusion of tobacco, to which langour succeeded. In this state I applied the hands, and was surprised at not feeling the testicle on that side: the patient informed me that it had never descended so low as the other, was much smaller, and had sometimes ascended into the belly, particularly when returning his hernia. On a mi-

nute examination I discovered the testis as a plug in the aperture, by its pressure closing up the intestinal tube, and impeding the circulation through it, thus producing the strangulation. I endeavoured to remove the testis, but failed. The pulse having increased in frequency and hardness, four ounces of blood were taken away, which was succeeded by an abatement of the pain, and greater regularity of pulse. Despairing of being able to remove the obstructing cause without exposing the parts, I proposed the operation, to which consent was refused. I directed all my efforts towards dislodging the testis, which at length succeeded: the hernia became diminished in size, and the strangulation yielded. This took place on the third morning after the attack.

In April, 1811, I was called upon to see a female, who was seized about six hours before with strangulated hernia; she was young and robust. I took blood from her arm until she swooned, and put in practice the usual means, of which I approve, but unsuccessfully. She resisted the operation until the fourth day; in the interim she lost about fifty ounces of blood. On laying the sac bare, it was gangrenous and readily broken in threads by a director; the intestine was chocolate coloured. These appearances, and the length of time the disease had continued, inclined me almost to despair of success. I incised the tendon about one eighth of an inch, within about half an inch of the pubes, grasped the intestine between my fingers and thumb, gently pressed its sides together, until it was emptied; it then returned with the greatest ease, and she recovered.

I am induced to communicate the first case on account of its singularity; also as affording an instance in which

strangulation was produced, independent of the aperture, by the mechanical pressure of an adventitious body, and in which the practice I oppose was contra-indicated: all attempts in the usual way would have increased the mischief: It clearly illustrates the *rationale* contended for in my late publication: namely, that the indication of cure was not the return into the abdomen of the protruded parts, by pressing them up with the hands in the direction of the aperture; that the apertures were passive, and only secondarily concerned, and that *a pervious* state of the intestinal tube, and abatement of inflammation, were the sole indications, requiring for their fulfilment a manual effort totally different from that which is laid down, and of which they strongly mark the impropriety.* I introduced the next case to shew the advantage of copious bleeding: to which I attribute in a great measure the successful termination. That such a subject should have escaped diffused inflammation, and its consequences, during four days that she suffered under femeral hernia, by far the most dangerous kind, on account of the smallness of the aperture, is scarcely to be conceived. It also exemplifies the manner of treating the intestine (after being exposed in the operation,) which I advise; I held it within my fingers and thumb until it became flaccid, without any view to replacing it in the tumefied state. The universal practice is, after cutting the tendon, to endeavour to return the gut; and if it is too large for the opening, to dilate still further until the aperture admits of its easy return. Now, there is a wide difference between returning a tumefied and a flaccid intestine; the former will require a large incision, the

* Mr. Hartigan saw both these patients on consultation. On my stating the first case, he judiciously remarked, that the general practice of pushing up would be improper here; that we should pull down.

latter a small one, which is a point of great moment. Were it granted as I contend, that to effect the return of the contained air was sufficient, a large incision would never be deemed necessary in mere intestinal hernia; the slightest increase of space would admit of its escape. I have seen this operation performed by Surgeons who were considered as dexterous, and they always pushed the hernia towards the opening, and if its entrance was impeded, they enlarged the incision, and exerted considerable force to effect its replacement; and the event often proved fatal. About eight months ago, I saw a Surgeon of great experience perform the operation. As he pressed the intestine towards the opening, it slipped in all directions through his fingers. After enlarging the incision twice, he was still foiled in his attempts; at length he applied both hands, raised himself on his toes, and, bringing to bear all the force he could exert, drove the inflamed bowel before him. Now, after the tendon had been freely cut, the tumefied state must have been kept up by stricture further in, or the *agglutination of the intestine, which had taken place during the strangulation*, must have continued; in either case, the resistance was in the impelled body itself, whilst it continued, and until it was removed, the return of the hernia ought not to have been attempted.

In endeavouring to relieve strangulated hernia, I contend that theory and practice correspond in support of the opinion I have advanced, as to the indication of cure, and the manner of carrying it into effect. In further illustration I shall suppose a case of ordinary occurrence. A hernia shall remain displaced a length of time without any ill consequence: on a sudden it shall suffer

external violence, or from bodily exertion an increased quantity will rush down; it becomes enlarged, and violent symptoms ensue; Nothing can be more clear than that these symptoms were not produced by the displacement, and of course that the cure does not consist in the replacement. No: the strangulation is a new disease, which has supervened upon the protruded parts, and, agreeably to a settled principle of the *ars medendi*, the supervening disease is always to be removed first. The removal of the original is an after consideration, and may require distinct means; this is a distinction of the first importance, essential to ground a rational practice upon. Inflammation has supervened upon a part of tubular structure, and it should be borne in recollection that it is double, and forms as it were two tubes within a small opening; the natural contents are air and fluid fæces; these tubes become obstructed, hence inflation and impeded circulation. The remedy for this state surely is the removal of the inflammation and tubular obstruction, because previously to their occurrence there was no strangulation, although the intestine was PROTRUDED. How can we then reconcile the established opinion, that the indication of cure, nay the very *first indication*, (according to Sir A. Cooper,) is to replace in the abdomen (where it might not have been for months before) this inflamed mass; to effect this by pushing it forcibly through the aperture, which is already too confined to contain its smallest part? One would think that an hernia, which lay at ease in the scrotum for some time, would not require to be forced out of its situation, to relieve an inflammatory attack upon it. In pressing up this inflated and folded tumour from the bottom, surely it will divaricate as much as the sac will allow, which

will weaken its force, and in every step oppose the intention, besides the mischief to be dreaded from the resistance of tendinous parts, and, in femoral hernia, of the bone. Was the indication correct, the bulk of the hernia must prevent its fulfilment. Herniæ of small size are sometimes exceptions to this, but by no means proof of the efficacy of the practice; in many such instances the indication has been fulfilled, yet the termination was fatal, and the hernia has been found within the abdomen still strangulated. There is a case in the Philosophical Magazine for September, 1810, (which although not the same, is in point,) by Mr. Taunton, in which an hernia was with great difficulty pushed inside the abdominal ring; the symptoms continued, and it proved fatal. On examination it was found situated on the anterior part of the spermatic process, between the peritoneum and abdominal muscles, still strangulated, not by the apertures, but by the peritoneum. All the viscera were in a healthy state; from which Mr. T. infers, that if an operation had been performed early, the life of the patient might have been preserved; to which I beg to add, that if the surgeon had not attempted to fulfil the indication of replacing the gut, it would have been visible and tangible, and have invited the operation; and had he endeavoured merely to squeeze out the contents in the way I proposed, without pushing it back in its tumefied state, and did not succeed in emptying it, the fallacy to which the death must be attributed could not have occurred. The records of practice, and the experience of several surgeons furnish examples to the same effect; still the latest writers and teachers recommend this very practice, uninstructed by these facts, and merely copying those that went before. The reasoning and facts advanced in this

paper, and in my publication, and much observation, perfectly satisfy me, that the indication of cure, and the manner of fulfilling it, as univerfally taught, are at variance with all principle, not adapted to the cure, highly dangerous, and ought to be abandoned, and the indication substituted of abating inflammation, and removing tubular obstruction, which is often effected by local and general remedies, as I have already detailed, without handling the part, and should they prove ineffectual, the sensibility will be lessened so as to admit of manual efforts with more safety. These efforts should be conducted differently from the usual manner, their object being different, namely, the return of the contents of the hernia, not the hernia itself. This is to be effected by embracing it with the hand or hands, according to its size, and gently squeezing, so as to act upon the contents without disturbing the hernia much, or removing it from its situation. If the contents obtain exit through the obstructed part of the intestine, the strangulation will yield; then the intestine being reduced to a smaller size than the aperture, can be replaced with ease: It is manifestly its bulk that constitutes the resistance; a point of incalculable importance on which to anchor. Should this practice fail, the hernia will still be within the reach of operation, and those fatal consequences arising from strangulation within the ring, after the replacement, can never occur.

Every practitioner lays great stress on the direction which ought to be given to the pressure; but this cannot be necessary to press out the contents, because a confined fluid will force its way where there is the least resistance, and it is best assisted by the gradual approximation of the sides of the containing tube. Surely when the disease

yields to the tobacco glyster, and to cold applications, the contents must have passed without any direction having been given to them, or force of any kind used. In femoral hernia I cannot too strongly mark the danger of the usual practice, as the inflamed gut must be greatly contused by pressing it against the bone, (which surely cannot yield,) and against the sharp edge of the tendon. I have heard a professor, in recommending his pupils to use force, state, that the objects of returning the hernia, and of pressing out the contents, may be effected together; but this opinion cannot be supported a moment: because, as it is intended to overcome the resistance which the apertures afford, the gut should preserve its firmness all through, for the moment the air is pressed out, it becomes flaccid and totally unfit for the intended purpose; he should desire, on the contrary, that the sides of the intestine be firmly agglutinated, and not a particle of the contents escape, so as to be wielded like a wedge in forcing through these rigid parts. He also observed, that when the operation is performing, it sometimes happens, that in returning the hernia, it pushes out, and there is great difficulty in retaining the part first returned within the cavity. To remedy this, he directs, that, after pushing up a part, the fingers should be placed at the aperture, to keep it in, whilst the other hand was employed in pressing up the remainder. That this view of the case, and the practice, are erroneous, I conceive can be easily shown. The inflated state is not attended to; protrusion is the natural effect of the continuance of that state; the removal, then, of the air, &c. into the part of the gut which is within, by gentle pressure, will render it flaccid; then its pervious state will be ascertained, and it will not protrude until there is time to finish the operation. It is

also recommended to draw down part of the gut after the incision of the tendon; in favour of which practice no good reason is advanced, and it is liable to strong objections. It is tumified and inflamed outside and inside the apertures, and contused at the point of pressure; in this state it is to be stretched and pulled through a tense small opening, resisted within by tumefaction, and all this to assist its return into the abdomen. Now, if a pervious state of the gut and freedom of circulation have taken place, the slightest pressure will reduce the size of the hernia smaller than the opening, and in that state all resistance will be removed, and it can be passed in with the greatest ease.

To conclude, I request I may be understood as opposing the principle, that strangulated hernia is to be cured by pushing back, by force, the inflamed and inflated parts through the perforations in the abdomen; as desirous of deciding the question of bleeding *quoad vires*, which is in doubt, and establishing the principle, that inflammation alone is to be combated, with reference to the importance of the parts, and the necessity of immediate alleviation. In the opinion that the term *strangulated* is not expressive of the real nature of the disease, and encourages the practice which I think erroneous, I would substitute the term *inflamed hernia.* We know that patients under enteritis have precisely the same feelings and effects as those who labour under inflamed hernia, yet there is no stricture from tendinous compression, in the former; the intestines are inflamed, and the distress arises from their being distended with flatus of the most pungent kind in the inflamed state. In inflamed hernia the effect from the apertures is inci-

dental, which is proved by the existence of the disease when they are perfectly free. Dissections shew that the cause of death in both diseases is the same; namely, diffused inflammation and its consequences. The surgeon who is impressed with the notion, that he is to cure *inflamed hernia*, will never place his patient on his head, and toss him about; such practice may increase, but cannot abate the tumefaction, which is the *sine qua non;* he will not attempt to push it by force through an aperture which bears no proportion to its dimension. No; he will proceed as in all cases of visceral inflammation, enjoin composure, and hold firmly in his view, that UNTIL THE OBSTRUCTION IN THE INTESTINE, which is the effect of inflammation, is removed, its replacement will not cure, and ought not to be attempted. He will return the hernia after the inflammatory stage, when it can be done with safety, as curative of hernia, but not of strangulation, as it is termed. That the operation has very often terminated fatally, although less frequently than formerly, must be acknowledged. The cause assigned for this termination has generally been, that it was performed too late, to which I assent, in a great measure; but I particularly attribute it to a mistaken view of the disease, and the practice founded upon that view. It is represented as if entangled, and to be disengaged by jolting the entire body, and forcing with the finger and entire hand, &c. &c. which is by no means calculated to remove the contents (although it does so sometimes per accident) and must aggravate the symptoms so as to render future operation unavailing. I consider the jolting as improper as it would be in enteritis. The French surgeons succeed more frequently than we do, which is attributed to operating early: I attribute their success to bleeding, which

they carry to great extent, and to their avoiding manual efforts very much. Desault forbid them altogether; indeed their chief reliance is on bleeding. The many cases recorded, my own experience and view of the disease, warrant me in believing, that if the hands were not applied, but strict attention paid to composure and position, and bleeding particularly attended to, that the operation would be less frequently necessary and oftener successful. I conduct the manipulation in the manner an elastic bottle or a bladder is emptied when administering an enema. It is last in my order of treatment before the knife; first with every one else. The representation of all our modern writers, that the gut is girt as if bound by a cord, strongly opposes their own practice, as to the taxis, by supposing an immoveable state, which every touch of the fingers must inflame, and still further enlarge, whilst the indication is to diminish.

To the attemps which have been made to decry my opinions, I offer these reflections in reply; desirous of defending myself only by further explanation, scorning the example of those reviewers who degrade an honourable profession by illiberality, and, instead of elucidating science by temperate discussion, obscure it by misquotation, and every kind of misrepresentation; thus disgusting the ingenuous, repressing their zeal, and discouraging their contributions; to the prejudice of humanity.