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PRACTICAL HINTS

ON

O P I U M

CONSIDERED AS A

P O I S O N.

By R. HAMILTON, M.D.

OF THE ROYAL COLLEGE OF PHYSICIANS, LONDON;
MEMBER OF THE ROYAL MEDICAL AND PHYSI-
CAL SOCIETIES OF EDINBURGH, AND OF
THE MEDICAL SOCIETY, LONDON.

IPSWICH;

PRINTED AND SOLD BY G. JERMYN, IN THE
BUTTER-MARKET.

M,DCC,XC.

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ON

OPPIUM

CONTRAINDICATIONS



POISON

BY R. HAMILLTON, M.D.

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ROYAL-MARKET

1825

Practical Hints, &c.

A melancholly accident having, within these few days, taken place in this neighbourhood, from a quantity of Opium given to a young boy, by mistake for a different medicine, which soon proved fatal, gave rise to the following remarks. The Author hopes the public will receive them with candour, since they are laid before them to guard them in future, and prevent them from keeping in their houses, as family medicines, drugs of violent operation, undistinguished by proper labels from more innocent sub-

stances of the *Materia Medica*: or should the like again take place, that they may from these hints, be the better prepared to put in force the means of cure, he submits to their consideration, which on many such occasions, (for too many such are on record) have been found effectual when they were had early recourse to, and strenuously applied.

THIS drug of high use, and deserved estimation in Medicine, like many others of the virulent Vegetable Poisons, becomes, when incautiously exhibited by those less acquainted with its powers, and when given thro' mistake, speedily destructive; changing the regular motions of the living body into irregular and violent; inducing stupefaction; convulsions; appoplexy &c. soon to be followed by a total deprivation of life.*

* Eos, qui Opium copiosius acceperunt, sequitur in somnum gravem collapsio, mentis sopor, et sensus ab-

WITHOUT entering into a dissertation on the subject at large, or a detail of the various opinions, and hypotheses that have lately, as well as heretofore, been advanced relative to its mode of operation as a medicine, this being foreign to my present purpose, let me at once suppose such a quantity received into the stomach, as must in a short time induce death, should attempts, (and these almost instantaneously) not be made to prevent its baneful effects; and indeed, admitting them made, it must be confessed, (so great may the force of the poison be) that its effects may be exerted even in a very short time, altogether beyond the possibility of obviating, notwith-

lienatio cum frigiditate et pruritu vehementi, ita ut hominem exitet. Odor opii per totum corpus effertur, et exhalat: maxilla laxatur, tumescunt labra, irruiunt singulus, distorquetur nasus, adest pallor, livor unguium, præcordiorum divulsio, respiratio parva, et frigida, et ad finem etiam convulsio. Auctore Aëtio.

standing the most diligent application of the most rational means.

THIS reflection, however, should not slacken our endeavours or damp our ardour, but ought rather to stimulate us to a trial of all the methods that have been known to succeed.

THE first thing then to which we are to turn our attention, is the use of emetics: and let one be thrown down the most speedy in its operation.—Powders of Ipecacuanha, Tartarised Antimony, Vinegar of Squills, or, perhaps what may still be more quick in exciting the action of the stomach, White Vitriol.—The contents of the stomach, suppose the operation succeeds, should be examined to find whether any of the Opium has been evacuated; this will be easily discovered by its smell, and will afford en-

couragement to pursue our first advantage, by continuing the vomiting till this organ be compleatly evacuated.

THE doses used must be in proportion to the exigencies of the case, to the diminished energy, and sensibility of the nervous system in general, and the stomach in particular. If the Opium has begun to exert its effects, the more will be necessary; and as there is no time to loose, and inevitable danger, perhaps death, awaiting, we must hazard the larger quantities in proportion to the accustomed doses, and persist in their use.

To prevent stupefaction as far as in our power, and the consequent train of bad symptoms, strong agitation may be used, such as walking, running, shaking, &c. this has been strenuously recommended by several Authors. In one case, as I am

lately informed by a Medical Gentleman in this county, whose sister was the subject of the trial, it appears to have had no small share in the cure. The gentleman when a child about six years of age, having observed his mother take something from a bottle in her closet, went afterwards and brought it to his sister, a child about a year younger than himself, persuading her to take of it, which he intended to do also, but his sister after taking some complained it was bad tasted, on which he took none; she soon became affected, the family were alarmed, and their Apothecary was sent for. Among other things he ordered the child to be walked about though in a state of stupefaction, being held up between two servants, and kept in constant motion for several hours. She recovered with difficulty, ~~and a great part of the cure was attributed to this treatment.~~

To these should be added Stimulants of all kinds, as Volatile Salts to the nose, Blisters to the skin, &c. If epispastics are applied, they should be placed on the most sensible parts, or joints, as the ancles, arms, inside of the legs, and soles of the feet, and wherever the body is thinnest of flesh, and the nervous fibrillæ most numerous.

It may be objected to the use of blisters, that they will act too slowly in a case of this nature, where expedition is so requisite. But without attempting formally to remove this objection, which we think might be easily done, as it is not their evacuant, but their stimulant effects for which we consider them expedient, we shall only say, that their application even in that case, can do no harm by interrupting other means; and on this ground alone, I would not have them omitted.

IF we can rouse the mind so far that it will feel pain, so far one point is thereby gained, which adds somewhat to our hopes of success, and should quicken our exertions.

I know not how far Electricity might in this sense be advantageous. As it is acknowledged, however, one of the most powerful, though transient stimulants, and as it may be applied to the human body, even for a length of time, and frequency with the utmost safety, we can run no great hazard in giving it a trial, especially as machines for its commodious application are now in almost every body's possession. The poison being of the highest sedative nature, the strongest stimulants would seem obviously indicated as its antidote.

IN the cases of drowned persons, and those suffocated by the fumes of charcoal

&c. the analogy thus far holds good, that in *this* as in *those* there is a suspension of the functions from a deprivation of sensibility in the system. In *those* Electricity is strongly recommended.

THE writer of these hints will not enter here into that part of the Pathology which supposes the operation of the Opium to be by augmenting, or rarefying the volume of the blood in the sanguiferous system in general, and the head in particular, whereby a turgescence, and over-distention of the Vessels of this organ are said to be particularly present, and from which the symptoms of apoplexy are argued to arise. Of this opinion among others was the celebrated Mead. He affirms that it enflames the Stomach, and rarefies the blood to such a degree, that the Vessels cannot again reco-

ver their tone, whereupon apoplectic symptoms, &c. will ensue; to prove which he relates an experiment which he made with it on a Dog.

PERHAPS all stimulants, (and it appears to me, by the bye, that all substances taken into the stomach exert first a stimulant power, whatever their after action may be,) have the effect less or more of sending a greater quantity of blood to the head, at least quickening the circulation by which the face becomes flushed; but surely stimulants, for this reason alone, are not here to be omitted. The stimulant power of the Opium seems transitory, the sedative soon follows. And now, if we can rouse the powers of the heart to exert their wonted action, and renew the motion of the blood flowing at present languidly, we need the less dread this supposed plethora, as the consequence

must be a more equitable circulation, and distribution of the blood. I know no proof, however, that this fluid is augmenting in its volume, but that it is in a state almost of stagnation is evident.

Dr. Alston, in the presence, and with the assistance of Mr. Fullarton, a gentleman skilled in microscopical observations, in August 1733, conveyed into the stomach of a frog some Opium dissolved in water, and after putting it into a glass cylinder, they adapted the microscope to the membrane between the toes, in such a manner, that they had a distinct view of the circulation of the blood in this part. The Dr. had found before that Opium killed these animals, and his design now was to observe its effects on the circulation; no change, however, took place either in the colour or

consistence of the blood ; but the diminution of its velocity was extremely evident, “ for it did not move half so swiftly as it “ used to do in these creatures.” This observation was repeatedly made ; and as the effects of the Opium went off, the blood became gradually quicker in its motion. When the frog had entirely recovered its vigour, they forced more Opium into its stomach, and observing again, saw again the same diminution of the blood’s velocity.

FROM Mr. Ramsay’s experiment (made in April 1755) on a dog, we have a further proof of the pulse becoming slower. The heart of this animal in its natural state beat * 150 times in a minute. Four minutes after the injection of the Opium into the cavity of the abdomen, he fell down senseless. Mr. R. opened the thorax, which seemed to give the Dog no pain, and he felt

* Vid. Med. Ess.

plainly the motion of the heart thro' the pleura. It beat now only 76 times in a minute, and became slower. Immediately after counting the pulse, he cut the ribs on each side of the sternum in the common way, and laid them back, by which the heart was brought into view. It appeared quite turgid.

FROM Dr. Whytt's experiments, we have likewise ample proof of the lessened motion of the blood, after the application of Opium, "the veins," he says, "after a large dose of Opium especially those of the brain become much swelled, whence it has been thought, that Opium produces its effects in the bodies of animals partly at least, by rarefying the blood, and compressing the brain; but this distention of the veins seems to be no more than a consequence of a very slow motion of the blood

thro' the heart, on account of the insensibility with which this organ is affected." The Author tells us that in frogs, into whose stomach, and intestines he had injected Opium, he not only found the heart's auricle, but the great viens leading to it much distended with blood. From all this it must follow, that the heart and arterial system being so reduced in their irritability cannot propel the blood with sufficient force thro' the larger vessels near, much less thro' the extreme ones, and less still thro' the Veins.

Dr. Leigh gave two grs. of the resin of Opium to a healthy man, of 30 years of age, his pulse was then at 60 strokes in a minute, half an hour after it rose to 72; this proves what we have already hinted, that the first operation of this, as well as other drugs, is that of a stimulus; but be-

hold! in a short time it fell down to 55, was full and strong; and now head-ach, vertigo, and drowfiness fucceeded.

THE fame gentleman gave three grs. of the gummy part of Opium to a young woman. In ten minutes her pulse fell 13 ftrokes; became alfo full and ftiong.

To a third perfon alfo, he gave Opium, pulse rofe fix ftrokes in a minute, but in a quarter of an hour it fell 15, and became extremely full.

ON the fuppoftion, however, of rarefaction of this fluid, as well as inflammation, which has been contended was produced. Geoffroy, and others of the antient * phyficians recommended, and

* Dr. Tiffot is among the number who advife bleeding, from the ufe of Opium, in a quantity too great for health, in my opinion, without a juft foundation; he fays the patient is to be treated as if he had a fanguine apoplexy.

practised, V. S. without duly considering, we apprehend, that it is a most powerfully debilitating means, lessening the vigour of those functions which are already become too debile; and without reflecting, that as the stomach is the place of action, the part first affected, relief can only be rationally sought for by applications chiefly to this organ. Should evacuations, however, by blood letting be at all practised, scarifications on the head, or opening the jugular veins, or temporal artery would appear preferable to general V. Section.

FROM an experiment of the celebrated Dr. Mead on a dog, which he killed by Opium, this practice would seem to receive some countenance, for on dissection he found the blood vessels of the brain very full, and took a large grume of concremented blood from the upper part of it, as he cut

into the sinus longitudinalis.---No extravasated serum was found either in the ventricles, or any of the membranes. The stomach was wonderfully distended, though empty of every thing but some water and Opium; parcels of frothy mucus swam in it, and its inside was as clean as if scraped and washed from all the slime of the glands; some redness was discovered here and there, as if in the beginning of an inflammation; the pylorus was found contracted.

BUT even under these circumstances, I should be inclined to defer opening these vessels till symptoms of apoplexy had commenced, and other means, better adapted to the cure, had been pursued ineffectually.

Dr. Alston * makes a curious observation, which may be mentioned here;

* The Doctor denies the rarefaction of the fluids in these cases.

while he viewed the flow motion in the foot of the frog, as above related, he took notice that the frequency of the pulse was as usual, but the heart was weak, and had not power to propel the fluid with its wonted force to the extremities. “One thing,” says he, “was observable all along, that notwithstanding the diminished velocity of the blood, there was no sensible diminution in the frequency of the pulse; yet, when there was no circulation, or progressive motion of the blood, in this part, (the foot) the pulse was visible by an undulatory motion; that is, the blood returned as far back at every *diastole* of the heart, as it was protruded by the preceding *systole*; this continued till the frog was quite dead.”---He opened it, and “found nothing in its stomach but a clear mucus, like a jelly, a little coloured with the Opium. Every thing else seemed perfectly natural: this experiment we often re-

peated." He adds, "and it had always the same appearance and event."

AFTER the use of the emetics, the next practice, that I would recommend, is that of cathartics, they seem to hold the second place; nay, both emetics and cathartics may be conveniently exhibited at the same time. These, for the same reasons we gave in the use of emetics, should be powerful, and of a sufficiently stimulating nature. Aloetics, with others, from the tribe of resinous purges have been recommended; the powder of jalap, scammony, and calomel, are all active; yet vinegar of squills may be perhaps conveniently added to the number; and in some respects, at least, it may be found preferable, as it both vomits and purges, if administered to any extent.

NEUTRAL salts, and especially Glauber's, have been likewise recommended:—

while we use these we are not to omit glif-
ters : and these may be made of falt and
water, or strong brine, to which may be
added purgative ingredients, as may best
fute the prescriber's intention : they should
be thrown up as warm as convenient.

Mr. Ramfay injected into the intestinum
rectum of a small dog, a solution of two
scruples of Opium, in an ounce of water,
blood warm, to which he added a drachm
of T. Opii. in about a minute his hind
legs became convulsed, and in a few mi-
nutes more their sensibility was so de-
stroyed, that when pinced, they seemed in-
sensible to pain ; in ten minutes more he
became quite stupid ; fell into a "*profound
sleep,*" and was convulsed. On observing
this, a strong solution of sea salt, in water,
was injected into his guts ; this purged
him severely, and occasioned a prolopfus

ani. Soon after he awoke from his sleep, and gradually recovered the use of his hind legs. In a few hours he seemed well in every respect, but could take no food for some time.

BEFORE the enema be injected, I would recommend the use of a suppository, this may be prepared in an instant, with some paper twisted up, of a proper thickness, well covered with oil or hogs lard, and introduced per anum. It will at once bring away the fæces that are hardened, and filling up that part, and thus give room for the enema to penetrate farther into the intestine.

Dr. Dobson's patient, at Liverpool, was cured by the use of Glauber's salts and emetics. He had swallowed, in the space of 24 hours, 26 grains of solid Opium,

in the shop composition, called pil. saponac. By mistake for pil. aloetic. an ounce. The Doctor justly concluded, that in all probability, this would have proved fatal, but for the following favourable circumstances: First, That the Opium was in a solid form: Secondly, That a strong emetic was ordered, and repeated till it produced the desired effects: And Thirdly, That a free discharge by stool was obtained, by persisting in the use of Glauber's salts. He observes what is worthy of remark, that the neutral salts gave relief even before they had occasioned any evacuation. The salts were continued, at proper intervals, for three days after.

HAVING strengthened our hopes, by evacuations, per os & anum, the next to be thought of is that by the perspirable pores. To assist our endeavours here, the pa-

tient should be immerfed in warm water, and I should prefer that of a ftimulant to that of a relaxing heat; or, the water should be fomewhat above the tepid temperature moft commonly ufed, when the warm bath is applied.

I RECOMMEND this, though at the fame time I am well aware, that too great a degree of heat is unfavourable to perfpiration; but we are to keep in view the want of due fenfibility; and that fince, for this reafon, we were obliged to augment the dofes of emetics and purgatives, fo muft we now make ufe of a higher degree of heat to produce the fame effect. Thofe who contend for a rarefaction of the blood, and the prefence of fanguinous apoplexy, will, no doubt, think this part of our practice unfavourable to the end we have in view, the recovery of the patient,

as it will have a tendency to encrease the rarefaction of the sanguiferous system, and the fluids in general : but they will remember that we thought it more than probable, such a state of the fluids did not exist.

To assist us in opening the perspirable pores, diluents and diaphoretics must be conjoined ; for without a due proportion of diluents we cannot so easily force a sweat. The principle on which I go, by advising sweating, is from a supposition that the lymphatic system has absorbed part of the Opium, and that it is by this means mixed with the fluids in the general habit. And as our chief view is to evacuate it as compleatly as possible, that part of it which has been absorbed, and which creates a great share of the symptoms, cannot be evacuated by means more effectual than by sudorifics.

I NEED not quote the experiments of professor Monro on this part of my subject. He is clear that it is taken up by this system of vessels, because, among other proofs, both urine and sweat smell of it. The heart is a muscle very irritable. When the Opium is absorbed, the nerves of its inner surface must be affected, because it is then applied immediately to them, as well as to the nerves of the inside of the arteries; and through this medium, as well as through the nerves of the stomach, it must induce its peculiar symptoms. The diaphoretics, that have been generally used were of the warm kind, such as *℞. aromatic. mistur. camphe-*
rat. &c. —

A MAN who swallowed an ounce of *L. Laud.* within the space of an hour, in small punch, recovered by vomits, purg-

ing, blisters, and sweating. And a lady, eighteen years of age, who took the same quantity, was cured by much the same means.

A CHILD, of eighteen months old, labouring under the hooping cough, had a dose of elix. paregor. given, with the intention of moderating the cough; the quantity uncertain. It was administered at night, and the symptoms were not noticed till next morning, when deep sleep and convulsions were observed: recovery was here brought about by strong cordials. The quantity of the elix. appears not to have been so large as to produce those symptoms that end in speedy death.

Dr. Clark's patient, who in July 1766, swallowed a drachm of solid Opium, was also cured by vomits, purges, glisters, and sweating. The patient was an adult;

he took half a drachm, and repeated the dose at a short interval; in the space of 20 minutes it began to operate.

THERE is reason, I presume, to suppose that sudorifics, some sudorifics, at least, blunt the action of Opium. It is well known, that when emetics, neutral salts, and Opium are united, a much larger dose of the Opium may be administered with safety and success, as a medicine, than when given alone; its action by this addition being modified.

A PROOF of this we have in the composition, commonly known by the name of Dover's sweating powder. This is an union of Opium, ipecac: and vitriolated tartar. To assist then both in modifying the action of the Opium and procuring sweat, either ipecac. in powder, or an

antimonial may be employed in warm water, to which a small quantity of a neutral salt may be added; the Opium, being, as we presume, already in the stomach, will form a strong sudorific, and thus, part at least of the offending matter be converted into an antidote to destroy its own noxious quality, by hurrying it through the circulating fluids, and expelling it by the pores of the skin.

SHOULD the patient have lost the power of deglutition, for this has sometimes happened; these, and the other medicines we have recommended, must be forced into the stomach by a small tube. A woman was killed, as Dr. Alston relates, by taking a quantity of liniment for the hæmorrhoides composed of Opium and Myrrh, by mistake for a purge. When the mistake was discovered, a vomit was given, but though

this was not above three quarters of an hour after the bolus had been taken, she was so convulsed as to have lost the *power of deglutition*. She died in some hours after. Pulse large, full, and not very frequent. When her physician first saw her, there appeared a pale livor on her cheek, and in other respects she was like a person drunk.

THERE are few surgeons without hollow bougees ; provided nothing more convenient be at hand, one of these may be employed to convey the medicines down, especially for children, where the *æso-phagus* is shorter than in the adult.

IF the tube be long enough to pass beyond the *epiglottis*, or the passage into the lungs, it is all that is requisite ; the liquid, of course, must drop into the stomach ;

and this is no great length, as is well known to those who have used the probang, in pushing down, &c. substances accidentally sticking in the throat; or who will take the trouble to examine the distance between the lower jaw and the top of the sternum, where the trachæa and œsophagus dip under it.

SEVERAL authors have spoken highly in favour of acids, both among the ancients and moderns, for their power of modifying the noxious effects of Opium; among these, also, have been men of much celebrity.*

To acids Dr. Mead advises alkaline salts to be added. Dr. Cullen embraces the opinion that acids possess this power, and he speaks of his having found them so

* Wedelius, amongst others, strenuously asserts the use of acids.

from his own experience *. We wish the Doctor had mentioned the instances to which he alludes, and the other means which he pursued at the same time, as we would then have been more able to determine what share they exerted, and what might be, at the same time, attributed to the other methods he pursued. He does not, however, pretend that it changes the nature of this drug; for when it is given thus in union with Opium, in a large enough quantity, he allows it to have all the same effects as Opium alone.

Doctor Webster, an eminent medical teacher, at Edinburgh, and whom I have the honour to rank as one of my preceptors in this science, has the following

* “ Another means of weakening the powers of Opium is the application of acids, and we have found this very effectual.” Cullen’s Mat. Med.

observation, which may be found in his Syllabus. “Acids render the stomach less capable of being acted on by other matters, as spirits, ale, &c.” In the course of his lectures, the Doctor enlarges on the observation, by saying, that “the action of Hemlock, Opium, and Ipecacuanha, are moderated much by the addition of an acid.”

AN ingenious physician, who has not long since made many experiments on this article of the Mat. Med. denies that any such effects follow. He affirms that acids render the stomach less sensible of the operation of Opium, if given previous to it; but should the Opium be first administered, and its effects have began, in any degree, to appear, the acid then cannot lessen them.

HE gave to a boy, of twelve years of age, an ounce of common vinegar; a quarter of an hour after 40 gutts of L. Laud.; in half an hour it produced a severe sickness at his stomach, but no vomiting. His head now began to be a little affected, but this did not continue long; the pulse remained steady, except when the nausea appeared; these symptoms soon went off, and the boy was restored to his usual situation.

To a healthy young man he gave two ounces of the common vegetable acid, and in a quarter of an hour after 80 gutts of T. Opii.; two hours after taking it he complained of a little nausea and head-ach; these symptoms continued only a short time, when he felt himself as usual, except a little sickness about the stomach. The Doctor could discover no change in

the pulse whatsoever : he made similar experiments both on dogs and rabbits, and concludes, by saying, “ that the Opium seldom had much effect, if an acid was previously given.”

He instituted other experiments both on frogs and dogs ; to satisfy himself farther, how far the acid would act if the Opium was given, and had begun to exert its effects before the other was exhibited. His conclusion is this,---“ That the acid, if given after the Opium began to operate, had not the smallest power of correcting its dangerous tendency.” Hence it is plain, if we put any credit in the experiments of this ingenious gentleman, that the supposition of acids correcting the deleterious effects of Opium, like many other of the antient theories, has no existence in reality, and that, we must not,

therefore, place our dependance in their use when the patient is in danger from the noxious powers of Opium, though a different doctrine be supported by great names, both among the antient and modern physicians.

How far diuretics may conduce to the cure I dare not determine. As our great and chief business is to evacuate the Opium from the habit, and as the urine is found to contain it, which is indicated by its smell, I am inclined to think they may, in their turn, be advantageously had recourse to. The discharges by the skin are generally observed to lessen that by the kidneys; but both, I am persuaded, may be forwarded to a certain degree at the same time. Diluents was recommended to keep up a sweat; diluents, in plenty, will excite the urinary discharges: to these may be added

medicines more directly stimulating the urinary organs. Parsley tea may be drank ; *sp. æther. nitros.* has been generally considered as having specific effects on the kidneys.

OTHER methods more effectually for eliminating this poison from the human body, I know of none ; and I fully believe, where the circumstances are such, that hopes can be entertained, none other are necessary. Let me again recommend, however, expedition and diligence in their application. Dr. Willis informs us of a robust man, who, after taking a large dose of laudanum, was dead in so short a time as four hours. Others have died in ten, twelve, and sixteen.

Dr. Leigh gave only five grains to a woman, and it threw her into violent convulsions ; he gave her a few grains of ipse-

cucuanha to remove it, and afterwards 60 gutts of æther; she was not well, however, for two days after. The same gentleman gave to a dog, for an experiment, an ounce dissolved in water. In a very short time it threw him into convulsions, and killed him. We may remark, by the bye, that his stomach was immediately laid open, and the coats attentively examined, but not the smallest marks of inflammation were perceivable; a much less quantity would most undoubtedly have killed him. Dr. Mead gave a quarter of an ounce to a dog, and in so short a time as a quarter of an hour he began to sleep; then was convulsed; fell into universal tremblings; breathed short and laborious; lost the use of both his fore and hind legs; and then, as the Doctor expresses it, “his limbs on a sudden grew limber, and he instantly expired.”

WHEN, unhappily, this drug has been swallowed to this quantity, our first enquiry should be, how long it has been in the stomach, and in what form it was administered? whether in a liquid, or solid form? whether united with other substances, and what these substances were? In a liquid form it is found to exert its effects much sooner than when taken in a solid; and according to the experiments of the Abbe Fontana, in conjunction with spirits, it is the more powerfully deleterious.

Mr. Henderson, the comedian, it has been said, died in a short time, by some mistake in taking Opium; and the same has been asserted of the late Dr. Brown, who in a state, it seems, of intoxication, took upwards of 500 gutts of laudanum, and was found dead next morning. If this be true, it was a new way of taking off the effects

of intoxication; if he took it with this intention, it was like adding oil to extinguish flame; for Opium and spirituous liquors, in their effects, are very analogous to each other, and the means, in general, that cures the one will cure the other; with this consideration, that dilution is even *more* necessary, where spirits have been drank to a dangerous excess, than when Opium has been taken to the same extent.

To sum up the whole; if we do not speedily have recourse to emetics and the other means already mentioned; all other efforts, when strong convulsions and apoplectic symptoms have taken place, afford but little hopes that life can be saved. **I**f the dose be swallowed from even 15 minutes to 30 minutes, to an hour, according to the strength and age of the person, and the quantity taken, its operation may

have already gone such lengths, and exerted its baneful powers so far on the general system, as to render every succeeding attempt to save life altogether abortive, even under the management of the most active physicians of steady perseverance, and ready thought.

Ipswich, July 1, 1790.

Besides the case that gave rise to the foregoing reflections, the following instance of the death of a young woman, occasioned by Opium, about three years ago, lately came to my knowledge; on its being intimated to me, I wrote to the gentleman under whose care she was, during a few of her last hours, when he obligingly sent me the subjoined particulars.

To Dr. HAMILTON, Physician, Ipswich.

DEAR SIR,

I Am sorry I cannot send you a more perfect account of the case you require, than that which you will now receive; the girl's name, who was the subject of it, I forget*.

JUNE the 3d, 1787, I was sent for, between six and seven in the morning, to

* Her name, as I am told, was Lydia Spratt.

a fervant girl of a farmer, who lives about four miles from hence. The only information which I received, was, that they could not awake her; accordingly, on my going to her master's, I found her in a deep sleep, attended with laborious breathing and great sweating; knowing that the mistress of the house frequently took laudanum for a complaint in the stomach, I enquired whether the girl might not have taken some. The phial was accordingly sought for. And missing it, upon farther search, we found it under her pillow, and empty. The phial had been filled the day before, and contained two ounces; therefore, from these circumstances, we made no doubt but she had taken the whole about eleven o'clock the preceding night. I immediately gave her two scruples of ipecacuanha without the least effect; she did not seem to have the power

of deglutition at any one time, during my attendance, which was four hours; but the fluids which I gave seemed to go down her throat without any effort on her part. She had a florid look, but a languid pulse; however, I bled her about four ounces; I made a large orifice, but the blood came away very slowly, and was very black: I gave her vinegar and brandy, mixed with some of the spirit: ammon: comp: I likewise had her well rubbed in different parts of the body with the same mixture. After we had continued this method about two hours, I had her carried into the air, and laid upon a cask, which we kept moving about; when after all I found she remained in a total insensible state, I had her set in a chair, where she remained till she died, which was about another hour. Her breathing became more and more laborious; at

the end of every expiration, there seemed to be a total inactivity of the lungs for some moments, and the succeeding inspiration was long. I should call her death, a forgetting to breathe. Her eyelids were closed all the time, and when lifted up the pupils appeared very much dilated, and not to have the power of contraction.

I remain, Dear Sir,

Your very humble servant, &c.

R. PRIEST.

HARLESTON,
July 7, 1790.



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1840

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