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ON OPIUM, AS A REMEDY FOR THE EFFECTS OF UTERINE HÆMORRHAGE.

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In the year 1816, Dr. Duncan Stewart, Physician Accoucheur to the Westminster General Dispensary, and a Lecturer on Midwifery, in London, published a short but excellent treatise on the management of Uterine Hæmorrhage, in which he advocated the use of large doses of Opium in this affection, and illustrated his views by some very striking cases. The practice he recommended has, however, met with less attention from the profession than it deserved, although it has received the sanction of two great names in this department of medicine—viz., Professor Burns, of Glasgow, and the late Professor Davis, of London. We must look for its want of success partly to the antipathy which English medical men have to heroic doses of medicines and heroic plans of treatment generally, and partly to the circumstance of Dr. D. Stewart having, in the work alluded to, been too sweeping in his condemnation of the practice of rupturing the membranes in hæmorrhage before labour, a practice which was then considered established on a firm basis, and which has stood its ground up to the present time. It often happens that new but correct views in medicine are prejudiced by being conjoined with an incorrect estimate of the value of established opinions. A man is not content with making a valuable addition to therapeutics, but is desirous in his zeal for his favourite remedy to under-estimate all other means, and the result is, that the majority of practitioners lose their confidence in his judgment, and neglect the novelty. So I apprehend it has been in this case; Dr. Stewart's striking proofs of the value of Opium in Uterine Hæmorrhage have been passed over, because he tried to banish from practice another valuable means of treating one set of hæmorrhagic cases; whereas had he merely advocated the new practice as compatible with, and an addition to the ordinary means of suppressing flooding, which it really is, he might have obtained more followers.

Some years ago, my friend and colleague, Mr. Hunt, consulting surgeon to the Manchester and Salford Lying-in Hospital, without being aware of the existence of Dr. Duncan Stewart's work, adopted a similar mode of treating these cases, and I had then many opportunities of witnessing the successful results of the treatment in his hands. Since that time it has

fallen to my lot to see many cases of Uterine Hæmorrhage of all degrees of severity, and I have generally adopted this plan of treatment. I say generally, because I have occasionally adopted the stimulating plan of treatment, in order to ascertain its comparative value; but so satisfied am I that the plan of Dr. Duncan Stewart is preferable to all other modes of managing these cases, that I am anxious to add my testimony in its favour.

I may remark *in limine*, that the object of this communication is not to advocate the practice to the exclusion of the ordinary modes of *suppressing* Uterine Hæmorrhage, but rather to bring it forward as a valuable means of *combating the effects of hæmorrhage on the system*—effects which either lead to death in a very short space of time, or leave the patient in a state of fearful exhaustion, from which she has a protracted and distressing recovery, if indeed that state can be called a recovery, which but too often is attended by the development of some serious local disease, as for instance tubercular phthisis. Uterine Hæmorrhage in connection with pregnancy can be permanently *suppressed* under one invariable condition of the uterus only—viz., full and perfect contraction, and this must be obtained by general and particular means which it is not my object to discuss here; but the *effects of flooding* may be treated variously, and I am here advocating what seems to me to be the most satisfactory practice.

Before proceeding further, it will be well for us to consider the *manner* in which patients die from flooding, and I cannot give a more graphic picture than that presented in the following passage from Dr. Duncan Stewart's work, "When the general system has suffered to a great degree by hæmorrhage, the countenance is ghastly and expressive of great anxiety, the lips are pallid, there is oppressive sickness and vomiting, the pulse is fluttering, the patient complains of giddiness, dimness of vision, ringing noise in the ears, thirst, pain in the extremities, and pants for breath. If the discharge continues, the pulse becomes more feeble and irregular, there is a low delirium, with a state of great restlessness, the pulse is not to be felt—or only at intervals, convulsive tremors, distortion of the features, and deep inspirations repeated at long intervals, generally precede death."—p. 46-7.

The chain of effects is as follows:—After the first shock of the hæmorrhage is recovered from, the circulating system takes on an abnormal activity, in order to compensate for the loss in the quantity of blood, by conveying what remains more rapidly through the system, the heart beating more frequently, and the

elasticity of the arteries being oftener called into play. This excitement of the organs of circulation is soon followed by a very disproportionate degree of cerebro-spinal excitement, which induces a corresponding activity in all the functions under its influence, and the effects of which are particularly noticeable in the muscular system, in the form of hurried respiration, jactitation, extreme restlessness, and even convulsions. Undue expenditure of vital force is the consequence; the blood wastes rapidly to supply the increased wear and tear accompanying this state of excitement; the pulse indicates a further degree of activity of the heart and arteries; the patient becomes more and more excited, the balance between the functions of the nervous and circulating systems, the functions of organic life generally, and the quantity of the vital fluid requisite to carry these on is utterly lost, and the patient sinks exhausted.

She dies in fact from a disproportion between the amount of excitement in the system and the amount of blood necessary to maintain this.

All cases of hæmorrhage do not die exactly thus; for in some the first shock of the hæmorrhage proves fatal, the patient recovering from the syncope into which she has fallen, only to breathe convulsively a few times and then die. In other cases again, especially those where a slow draining hæmorrhage has been going on for some time, the state of excitement is never *so perfectly* formed; there is no hurried panting breathing—no convulsive movement nor tremors, no delirium nor unmanageable jactitation; but as Dr. Duncan Stewart remarks, “the prominent symptom is a state of general irritability of the system, and the muscular power is often continued to the last, the patient sinking suddenly after some considerable exertion,” such, for instance, as getting up to the night chair, as I have witnessed.

In most of the cases, however, where remedies are to be useful, we witness more or less of this state of excitement or irritability of the system, and on this point Dr. Duncan Stewart in his work, and my friend Mr. Hunt, in an unpublished paper, from which he kindly allows me to quote, very justly lay great stress; for it is one of the most striking circumstances in these cases, and deserves the greatest attention in reference to our choice of therapeutical agents. The great danger of this state seems to consist in the fact that the blood, the *pabulum vitæ*, the fuel which should enable the system to keep it up, has been for the most part abstracted. Undue excitement of the cerebro-spinal centres and the functions dependant thereon, is always attended with danger; but if a certain amount of blood is present in the system, it can be borne for some time with comparative impunity. In *delirium tremens* we have a great disproportion between the general excitement of the system and the vital power; but still no blood has been or is being lost, and the system can endure the inordinate activity of the nervous and muscular systems for a comparatively long period. In this affection, however, there is a point beyond which the continuance of the abnormal irritability becomes fatal. There is a sort of analogy between the excitement of this disease, and that attending upon hæmorrhage, for they both exhibit a loss of the balance that is maintained between the functions of the nervous centres and the vital force of the system

in a state of health. Opium, which is generally acknowledged to be so useful in the former, according to my observation, is the best remedy for the latter.

To recapitulate then, in the words of my friend Mr. Hunt, “the injurious effects of loss of blood are vigilance or absence of sleep, restlessness or jactitation, distressing thirst, an accelerated state of the pulse, and laborious respiration, with occasional vomiting and syncope. When to this is added, that by removing the blood we abstract that fluid from which not only the excretions and secretions are separated, but also by means of which the processes of growth and nutrition are carried on, it will at once be evident that the modifications of many of the vital functions, which follow the administration of opium, are directly contrary to those changes of the same functions which are caused by loss of blood.”

Further, it is well to consider what means nature herself takes to remedy the exhaustion arising from hæmorrhage in those cases that recover spontaneously, because such a consideration will indicate the remedy that we should use to imitate her processes. We find in patients, who have suffered from hæmorrhage, after the immediate effects of reaction are gone, a decided diminution in the quantity of all the excretions, excepting the cutaneous transpiration, a great dislike of a bright light or even strong daylight, and of loud sounds, and a great wish for quietude and disinclination for exertion; all which effects of loss of blood are curative in their nature, and intended to economize the vital fluid, the source of all vital power, by doing away with the wear and tear of the body to the greatest extent compatible with life. By this means the system has time to assimilate from the food taken more nutritive matter, or, in other words, to form more blood than is required for its immediate wants, and thus the blood lost in the hæmorrhage is gradually replaced.*

Considering the matter in this light, we find that a remedy is required that will check the inordinate excitement of the nervous, vascular, and respiratory systems which is wearing out the patient; that will check the vomiting which is harassing the already feeble sufferer, and at the same time increasing the flooding, by accelerating the circulation; and that will lock up the secretions that are being separated from the blood. Opium in *large doses* will do all this, and in *large doses only*, since *small ones* often repeated act as *stimulants*. By a large dose of opium, I mean a fluidrachm of tincture of opium repeated once, twice, or oftener, at intervals of 5, 10, or 15 minutes; and although medical men who have been used to estimate this remedy by drops may feel startled at this statement, I can assure them that I have repeatedly given three fluidrachms in two or three separate doses, and Mr. Hunt was concerned in a successful case in which six fluidrachms were administered in the course of four hours, and of this four and a half fluidrachms

* It will be seen how intimately connected this fact is with the views of modern physiology, as interpreted by Müller, Liebig, and Carpenter, who all in different words maintain the idea, that no muscular motion takes place in the body without a co-existent change in the integral texture of the muscle—viz., the absorption of the effete tissue into, and the deposition of new matter from the blood, and that this change is inseparably connected with the vital force of the part.

in the course of half an hour. It must be remembered that remedies can often be borne in diseased states of the system, in quantities that would be poisonous to the healthy subject. I may allude, in illustration, to the large doses of opium that are frequently administered without bad effects in acute rheumatism, (Dr. Corrigan's plan,) colic, cholera, diarrhoea, dysentery, delirium tremens, carcinoma, and tetanus. So that bearing these things in mind, there are analogies that would lead us not to condemn the practice untried because it looks somewhat heroic.

It might be supposed by those who have not had experience in the practice, that such large doses would produce prolonged stupefying sleep or dreamy stupor, nausea and vomiting, indigestion, obstinate constipation, sweating, headache, and contracted pupil. Such, however, is not the fact to any extent. In the worst cases of flooding, where opium has been very freely used, we generally notice during the first 12 hours, a comfortable composure with a tendency to doze, and occasional short sleeps of an hour or two's duration; but in some cases, and this is a very favourable symptom, the patient sleeps for a few hours, awaking much refreshed, and feeling very comfortable. In a few cases, the patient remains very sleepy for a day or two, but even then the sleep that ensues is always refreshing and comfortable. I may here allude to the importance of this sleep in a curative point of view, and mention the great probability of the friends of the patient interfering with it under the notion that it will terminate in the sleep of death. I have frequently witnessed the prevalence of this idea.*

Nausea and vomiting I have seen a few times, coming on some hours after the opium has been given, but it is an unusual occurrence, and when it does exist, is of no moment. In those cases where I have seen it, opium has been more freely used than is commonly necessary. Indigestion, constipation, and sweating, I have never been able to connect with the opium given. They all occur to some extent whether opium be given or not, that is if the hæmorrhage has been severe.

The stomach is generally feeble for some time, and sweating on very slight exertion is generally noticeable in patients convalescing from floodings; but these unpleasant consequences are never so troublesome in

* Mr. Hunt, in his paper has the following remarks, which are well worthy of careful perusal. "Sleep, which is one of the effects of a full dose of opium, is never met with as an accompaniment of severe hæmorrhage. The common prejudice that sleep is injurious in cases of Uterine Hæmorrhage after labour, is one from which the medical profession is not entirely free. It appears to have been founded upon the fear that the subdued or depressed state of the circulation during sleep would have the effect of producing a corresponding depression of the vital functions, which had already been impaired by the loss of blood. If the patient be allowed to sleep, the slumber it is supposed will terminate in death. It is well known that when death is the effect of exposure to extreme cold, an unconquerable disposition to sleep is the invariable forerunner of the fatal coma. Perhaps this circumstance may have had some influence in giving origin to the belief that a similar condition of the system, supervened in cases of fatal hæmorrhage. Facts are entirely contradictory of such a supposition. Nothing approaching to a state of sleep or coma occurs in cases of severe hæmorrhage, as far as my observation goes; even syncope is a rare symptom in the fatal cases, but there is on the contrary often an extreme state of restlessness."

cases that have been treated by opium, as in those treated by stimulants. With regard to constipation, it is Dr. Duncan Stewart's opinion, that opium, when given in large doses in cases of Uterine Hæmorrhage, acts rather as a laxative than an astringent, and although I cannot altogether confirm this, I can fully coincide in the statement made by him, that the bowels are easily moved by purgative medicines, if there should be any necessity for their administration. After hæmorrhages, constipation is one of the symptoms that occurs spontaneously; and I have never witnessed anything to lead me to suppose that the opium increases it to any extent. It is of great importance that this state of the bowels should not be materially interfered with, for it is curative in its nature.

The exhaustion that occurs in debilitated subjects, after a free evacuation of the bowels, is too well known to need more than alluding to here. How common it is for such patients to die on the night chair!

Contraction of the pupil sometimes comes on soon after the administration of the medicine, and my observation leads me to coincide with the opinion first broached by Mr. Hunt, that this is a very favourable symptom, as it shows that the system is thoroughly under the influence of the drug. With regard to its duration, I should say that, for the most part, it passes off in a few hours, and I never remember to have seen it last more than 24 hours.

Vertigo, and a very distressing pulsating pain in the head, in the course of the longitudinal sinus, are the usual effects of severe hæmorrhage, and for these repeated small doses of opium are the best remedy. These affections persist for weeks in cases treated in the ordinary method, whilst in those treated by the plan I am advocating, I have never seen them last more than a few days or a week; and the pulsating headache in particular was easily controlled by small doses (five minims) of laudanum taken every three or four hours.

The slow convalescence of patients who have suffered from hæmorrhage, and their liability to have developed latent organic disease is too generally acknowledged for me to insist upon it here. I allude to it in order to have an opportunity of saying that what I have witnessed quite accords with Dr. Duncan Stewart's experience on this point. In cases treated by large doses of opium, these subsequent difficulties in the convalescence have been much less troublesome than they are usually described to be, and than I have witnessed in cases otherwise treated; the tranquillity obtained by the opium, during the first week after the labour, seeming to have given an opportunity to the vital powers to recover themselves at a critical period of time, which if once left unimproved, is never to be regained at any subsequent part of the convalescence.

The theoretical objections of Dr. F. H. Ramsbotham, in his late work on midwifery, to the employment of opium in these cases, is based on the supposition that it exercises such a controul over the uterine fibres, that it is very likely to suspend their contraction, and so annihilate the only means we have of suppressing hæmorrhage; for it must be observed in the following words he does not refuse his testimony to the value of the remedy in combatting the effects of flooding.

(To be concluded in our next.)