THE ANTISEPTIC TREATMENT OF HEPATIC ABSCESS.

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PRIVATE THOMAS DEBELL, 4th Hussars, aged 39, twenty years' service, of which seven were spent in India, was invalided from India, and admitted into the Royal Victoria Hospital, Netley, on May 10th, 1878. He had suffered from primary syphilis in 1865, for which he was treated with iodide of potassium and mercurial fumigations. In 1870, he had repeated mild attacks of ague at Meerut, followed by syphilitic rheumatism. In 1871, he was sixty-three days in hospital, according to the medical history sheet, for "Bright's disease, cause unknown". There is, however, reason to believe that the symptoms which were supposed to indicate Bright's disease were in reality due to injury to one or both kidneys, the result of a heavy fall on his back from his horse. No symptoms of Bright's disease, nor any affection of the kidneys, were present on admission. He was invalided for the results of this accident, and sent home, arriving at Netley in April 1872, well and fit for duty, and at once sent to his dépôt, and, after a time, returned to his regiment in India.

In March 1878, he had what he describes as a slight attack of dysentery, from which, on embarkation for England, he was convalescing. During the voyage, while on night-duty, he slept on deck, was chilled, and suddenly seized with acute pain in the hepatic region, with rigors and vomiting. The following was his condition towards the end of May. He was emaciated; his tongue was clean; no diarrhoea; appetite bad; morning nausea. He was very restless, sleeping badly, yet his spirits were always good. Morning temperature 100 deg.; evening, 101 to 102 deg. Fahr. Pulse 80 to 90. The cardiac sounds were normal. Cough was troublesome at night; there was slight crepitation at the base of both lungs. Hepatic dullness in the mammary line extended from the sixth rib to within two inches of the crest of the ilium. Just below the cartilage of the ninth rib, there was a well-defined prominence, four inches in diameter, extremely tender, but without fluctuation. There were, in addition, general hepatic pain, and impatience of palpation over any part of that region; and the superficial veins on the right side of the abdomen were prominent.

On June 6th, an unsuccessful attempt was made to evacuate an abscess, the existence of which was diagnosed, with an aspirating needle. No pus was found, but rather more than half an ounce of blood was withdrawn by the exhausting syringe. For two days, the patient experienced considerable relief of the local symptoms from the operation. Soon, however, diarrhoea and night-sweats set in. It was then determined to operate again, this time according to the antiseptic method. The operation was performed by Surgeon-Major Porter, Assistant-Professor of Surgery, the patient being under the influence of ether, a powerful steam-generated carbolic spray playing on the part. An opening was made with a full-sized trocar between the ninth and tenth ribs. Twelve ounces of thick creamy-looking pus having been withdrawn, a drainage-tube was introduced and secured in the usual way; the part was dressed with carbolised gauze and tow, and secured with a carbolised bandage, according to Mr. Lister's method, the spray playing until the dressing was completed. At every subsequent dressing, the same method was carried out with scrupulous care, so as to avoid the entrance of uncarbolised air, and the discharge was received in the carbolised dressings.

It is not necessary to give the details of the case further than to say that the case progressed favourably, and that, the great heat of the weather notwithstanding, the discharge continued free from every trace of mal-odour to the last. Some difficulty was experienced in introducing fresh drainage-tubes, owing to contraction of the wound, which was overcome by careful dilatation with bougies. During treatment, the patient was troubled by a return of syphilitic rheumatic pains, which were relieved by iodide of potassium in full doses. On August 25th, the tube was withdrawn, the wound, however, being still dressed with carbolised lint. By the end of August, the wound was quite closed, all pain and tenderness on pressure had ceased, his general health was good, his temperature was normal, he had gained flesh, and was able to make himself useful to patients in the ward. The liver was greatly reduced in size; in fact, in all directions, little exceeding its normal limits. Having completed his time of service, he was finally discharged "to pension", in very good health.

We see at Netley more hepatic abscesses than are probably to be found in all the hospitals in this kingdom. We have given an extensive trial to treatment by aspiration; and although, in a few instances, the results have been satisfactory, and in almost all attended with considerable temporary relief to the sufferers, we have, on the whole, been

disappointed by this mode of treatment, which at first promised so well. Very rarely has one tapping sufficed; in by far the majority of our cases, aspiration had to be repeated again and again, the pus withdrawn often amounting in the aggregate to hundreds of ounces; in one case, recorded by me in the *Army Medical Reports*, to six hundred ounces; until patients, worn out by this immense discharge, and the great destruction of liver-substance, at last succumb. Nor is this to be wondered at; nine out of ten of the cases of liver-abscess that come to us at Netley are of old-standing, have a dysenteric origin, and are multiple, and the sufferers are worn out by the previous dysentery and its formidable sequel. In the army medical report above referred to, I gave a series of cases of this kind, and urged the desirability of trying the plan of drainage on antiseptic principles, as strictly carried out in the case reported above. I hope that an extensive trial of this more hopeful method will be made in the civil and military hospitals of India, where tropical abscess of the liver is of only too frequent occurrence.

In the report of the case given above, the relief of symptoms following the direct removal of a small quantity of blood by the aspiratory instrument at the unsuccessful attempt to find the abscess is noted. This has occurred to me so often, that I have frequently taken occasion to point it out to our young medical officers about to go to India, as a promising method in acute cases for cutting short inflammations of the liver, and preventing suppuration. No one has been more urgent against the coarse and unsurgical methods of exploration with large instruments, at one time in fashion, than I have; but with the fine needles and aspirating instruments now available, the liver may be punctured and blood abstracted directly from it, without fear of evil consequences, and, I believe, often with great benefit. The method is, at all events, worth a fair trial in those parts of the world where this important organ is subject to suppurative inflammation.

A NEGLECTED PROXIMATE CAUSE OF DYSPEPSIA, WITH A NEW DIVISION OF THE DISEASE.

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(Concluded from page 623 of last number.)

ALL cases of true dyspepsia may be referred to two proximate causes. Instead, then, of the classification into atonic dyspepsia, which is not used in any precise sense, and gastritis or gastric catarrh, neither of which terms is applicable to all the cases they are often made to include, I propose the following divisions.

Dyspepsia from impaired motion;

Dyspepsia from defects of secretion.

We have nothing at present to do with the latter, beyond what concerns the differential diagnosis between the two classes.

Avoiding minor details, the leading symptoms of dyspepsia, namely, uneasiness in the stomach after meals, described variously as a sense of weight, fullness, or pressure, flatulence, pain, and constipation, are, for sake of comparison, arranged in parallel columns, and each is separately considered under the two above named heads.

IMPAIRED MOTION.

Uneasiness after Meals.—A constant symptom; generally soon replaced by the sense of tension accompanying flatulency.

Flatulence.—This is the most characteristic symptom of impaired motion.

Gastric Pain.—Unfrequent; but occurs occasionally as a result of flatulence, and is peculiar in kind.

Constipation.—Almost always a marked symptom.

DEFECTS OF SECRETION.

Uneasiness after Meals.—Not unfrequent, but commonly soon merged in actual pain.

Flatulence.—Comparatively unfrequent. Some of the worst cases, in which pain after food and other symptoms are particularly severe, are entirely free from flatus. The tendency is to lactic, butyric, and, perhaps, other forms of fermentation, in which gases are not evolved.

Gastric Pain.—Variously described as sharp, shooting, dull, or dragging, is the most characteristic symptom of defective secretion of gastric juice.

Constipation.—Not generally present; and the bowels are in many cases relaxed.

Although the great importance of gastric peristalsis has not been hitherto recognised as a cause of dyspepsia, due weight has long been

attached to peristalsis of the intestines. Diminished intestinal peristalsis is a recognised cause of constipation, for which remedies are daily prescribed. It is precisely in such cases of dyspepsia that constipation might be theoretically expected, from the probable existence of a common condition throughout the intestinal tube. In the case of imperfect secretion, on the other hand, digestion is not merely sluggish, but the gastric juice being unable to effect the necessary changes in the aliment, the ill-prepared chyme is unsuited for contact with the intestines. The consequent irritation not only prevents constipation, but sometimes causes diarrhoea.

In some cases, the symptoms which accompany impaired gastric movements are of so general a nature, that the question arises whether the gastric affection may not be incidental to a state of relaxation and want of power in the whole system. The circulation is slow and weak, indicating a relaxation of the vaso-motor nerves, and feebleness of the heart. But the organ is easily excited, and its action is often intermittent. For the latter, there are two causes, namely, mechanical pressure of the distended stomach on the diaphragm, and irritation reflected from the stomach through the pneumogastric nerves to the heart. Sometimes this irritation affects the lungs, when dyspnoea and cough are produced. The tongue, large and flabby, is deeply indented by the teeth, while the muscular structures of the throat, like those of the stomach, are so relaxed, that the part is often a source of constant trouble. There is a general sluggishness of the whole man. The tendency to sleep after meals is, in some cases, irresistible. The mind participates in the torpor of the body, and yet, like the circulation, is subject to be morbidly excited. It is in this form of dyspepsia that the pains of indecision, depression, and apprehensiveness, are most fully experienced. Such is an outline of the symptoms caused by, or perhaps sometimes only coincident with, impaired gastric peristalsis. Mixed cases, in which the effects of defective secretion are combined with those of impaired movements, are to be met with. But, in general, the affections are distinct.

The distinction between their causes is also well marked. The causes of impaired peristalsis may be summed up as those by which nervous energy in general is impaired. Such causes are, hard study, mental strain, depressing passions, prolonged bodily fatigue—in a word, whatever uses up nerve-force in such a way as to leave an insufficient amount of it for an organ, the action of which, although intermittent, requires a large share.

But, in order to maintain its vigour, the stomach requires absolute rest at regular intervals, and, for this purpose, must be empty. When at rest, the organ hangs motionless and nearly perpendicular in the abdomen. The practice of eating too frequently or at irregular intervals is, therefore, a common cause of dyspepsia from impaired motion.

Tea-drinking is a very common cause of impaired gastric peristalsis. This is mainly due to a specific effect on the nerves, and partly to the practice of taking the infusion as warm as possible, by which the tonicity of the muscular coat of the stomach is lowered.

The proximate cause of defective secretion is congestion and consequent gastritis. A primary affection of the vaso-motor centres is probably a frequent cause of congestion; but local irritation, such as from strong alcoholic drinks, hard indigestible food, and food taken in excess of the gastric juice secreted is the ordinary cause.

In the treatment of all forms of dyspepsia, attention to diet claims a prominent place. Articles known to be slow of digestion must be avoided, and a lessened amount of food must be taken only at proper times. But, as a rule, absolute strictness in diet is more necessary in dyspepsia from defective secretion than in that from impaired motion; for, as already said, in the latter affection, digestion is sluggish rather than imperfect. One dietetic rule is, however, of the greatest importance in the present case. The principal meal should be taken early in the day, before the nervous system has been exhausted either by mental or by bodily exertion. In some instances, the power of digestion seems to diminish in proportion as the day advances. A distinguished literary lady consulted me who had, by incessant brain-work, fallen into a state of great suffering from gastric oppression and flatulence after meals. At my suggestion, she dined early instead of late in the day. This change was beneficial, but was not effectual in affording relief. I then advised that she should eat meat at breakfast only, and that no writing should be done before the meal. This plan succeeded perfectly.

From its well-known power in causing muscular contraction, strychnia suggests itself as the remedy for impaired gastric peristalsis. It affords the most powerful means we possess of restoring the gastric functions. I may, perhaps, take some credit for having helped to make known its value. So long ago as 1860, I wrote: "Speaking from extensive experience, I know no single medicine of more value It acts by increasing the tone of the muscular coats of the stomach and intestines. When these coats are relaxed, gases are

generated, mainly owing to retardation of the aliment in the cavities, No remedy has in my hands proved so permanently effective as strychnia against this inconvenience." (*Imperfect Digestion*, 1st ed., p. 186.) In 1864, the late Dr. Brinton, following Chomel, condemned the use of strychnia in stomach-diseases as unnecessary and dangerous. (*Diseases of the Stomach*, p. 334.) But, notwithstanding the condemnation of these authorities, strychnia has held its place in these affections, because, although too often given without discrimination, it proves beneficial in many instances. The secret of its successful administration lies in the recognition of the cases. It is suited for cases characterised by the symptoms of impaired motion; namely, uneasiness, but not actual pain, after food, and flatulence. It is not suited for cases of impaired secretion, characterised by pain after food and little or no flatulency.

Some precautions are of course necessary, and more so because the patients are seldom under daily observation. A dose of one-twentieth of a grain should rarely be exceeded. It should never be given in pills, on account of the difficulty of exact subdivision in that form. The susceptibility of the alkaloid to precipitation by alkalis and some other substances must be kept in view. If so precipitated, the whole of the drug would, of course, be contained in the last dose in the bottle. For the rest, the pharmacist must be responsible. But, after having prescribed strychnia some thousand times, I never knew any harm to arise from its use.

It might be supposed that electricity would prove useful for lesions of peristalsis; but, after many trials of faradisation and a few of the direct current, I am compelled to say that I do not regard it as a useful agent in this affection.

It is sometimes desirable to check flatulence by some agent which hinders fermentation. Formerly, I prescribed carbolic acid for this purpose; but its unpleasant taste is a great drawback. Of late, I have used thymol with, I think, better results; and the taste is far less objectionable.

Many cases are met with in which the stomach is unable to expel flatus in consequence of temporary paralysis from over-distension. Various drugs given to promote contraction of the organ—carminatives, as they are called—sometimes fail in their purpose. It is in such cases that charcoal proves useful. Charcoal possesses a remarkable power of absorbing gases; but this power, as I have elsewhere shown, is very much lessened by long keeping and by wetting. This led me to the plan of giving, in hermetically sealed gelatin capsules, charcoal prepared from vegetable ivory, which kind was proved by experiment to possess the best absorbing power. If, in cases of obstinate gastric distension, three or four such charcoal-capsules be swallowed, a few cubic inches of carbonic acid gas will be speedily absorbed. Tension being now removed, the muscular coat of the stomach generally resumes its power, and flatus is freely expelled.* In a few obstinate cases, however, chiefly when the stomach-affection is secondary to diseases of the liver or kidneys, the muscular paralysis is so complete that, as happens in case of the overdistended *rumen* in cud-chewing animals, mechanical interference is the most effective mode of treatment. For this purpose, I have had made a small India-rubber tube (tube shown) two feet in length, having one extremity closed, and perforated like a drainage-tube to the distance of four inches from the end. Such a tube can be safely and easily introduced into the stomach, and will prove effectual in relieving the distended organ.

I am convinced that certain symptoms, described as a sinking sensation in the gastric region, craving for food soon after meals, etc., are generally to be attributed to hyperperistalsis or exaggerated movements of the stomach. But this constitutes a distinct disease, to be separately discussed. The same remark applies to dyspepsia of liquids and the flaccid state of the stomach which exists in that affection.

CASE OF TONSILLITIS, MEASLES, MEMBRANOUS LARYNGITIS, AND CATARRHAL PNEUMONIA.

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I THINK the following case worthy of noting at this time, when the natural history and proper classification of membranous inflammations in the throat are under consideration.

A boy, two years and a half old, well nourished and strong, was admitted into the East London Children's Hospital on March 20th, 1879, suffering from a frequent "croupy" cough, and slight inspiratory dyspnoea, but the voice was very little affected. The glands in the left

* Perhaps the best proof of the utility of this charcoal so administered is to be found in the fact, that the capsules are manufactured on a very large scale, and are exported largely.