HOSPITAL CLINICS AND MEDICAL PROGRESS.

ATONIC DILATATION OF THE STOMACH.

DEALING with 100 cases of atonic dilatation of the stomach which he has seen during the last five years, Dr. Robert Saundby¹ considers the symptoms and treatment of this condition. First of all, however, it is necessary to define what is meant by the term. Such symptoms as splashing and visible peristalsis he does not regard as of serious value. They may be present when there is no dilatation and absent when that condition exists. Indeed, careful consideration of his cases has shown Dr. Saundby that the classical symptoms of dilated stomach were generally absent, and that the diagnosis would have been impossible by the usual methods. The method he employs consists in the administration of the stomach powders recommended by Dr. Eric Meinert, of Dresden, which contain 120 grains of sodium bicarbonate and 90 grains of tartaric acid, these quantities being dissolved separately in water and given successively to the patient. The administration of these powders rarely causes pain or distress, such discomfort as has been produced never having been more than trifling and temporary in character. The only needful warning is that the stomach should be empty at the time of their administration, otherwise vomiting of food may be caused; but if the stomach is empty, the most that occurs is the vomiting or eructation of inoffensive froth. It is to be noted that the administration of a stomach powder consisting of 15 to 30 grains of sodium bicarbonate with the same quantity of tartaric or citric acid, is altogether insufficient to distend the stomach properly or to define its shape, size, and outline. Nor is the inflation of the stomach by means of a syphon tube and the bellows of a spray producer a satisfactory proceeding. As to the causes to which the dilatation could be attributed, it appeared that in only 10 cases out of 100, namely those in which cancer or ulcer existed, could it be regarded as due to obstruction. Neurasthenia accounted for 29 and dyspepsia for 42, but no doubt many of the dyspeptic and other cases were neurasthenic. Pain was by far the most common symptom, and this was so in all the degrees of dilatation, and in both sexes. Vomiting came next, although this was not nearly so common as might have been expected. Loss of weight was noted in a good many cases, but in some it was definitely stated not to have occurred. It was met with proportionately more frequently, as was to be expected, among those cases which were due to obstruction—that is to cancer or ulcer—than in those due to atony. After pain and vomiting the most usual complaint made by the patients was of flatulence and water-brash. In regard to the chemistry of the stomach contents in these cases and the question of stomach motility the observations of Dr. Saundby are of much interest as showing the fallibility of certain signs on which much stress has been laid by some observers. Free hydrochloric was present in 32 out of 57 cases and absent in 20; in excess in two and deficient in three. Absence of hydrochloric acid is a point in favour of cancer, but it is too often present in chronic gastritis to make it absolutely trustworthy. Lactic acid was

present in 48 cases and absent in 9, while butyric acid was present in only 4 out of the 57 cases in which the stomach contents were examined. Those cases also in which butyric acid was present did not differ essentially from others in which it was absent, either in the degree of dilatation or in the presence of obstruction. On examining the contents of the fasting stomach, sarcinae were only seen in two, one of which was a case of cancer. Torulae were slightly more frequent. In regard to stomach motility we may take it for granted that there must be delay in the discharge of its contents in these cases, and it is not of great practical importance to go any further. The general result of the examination of the fasting stomach in the morning is to show that it rarely contains anything but a few starch granules and epithelial cells.

Even when we have ascertained the presence of dilatation it has to be confessed that the prognosis in atonic cases depends much more on the duration of the symptoms and the co-existence of marked neurasthenia and bad general health than upon the extent of the dilatation as shown by distension with carbonic acid gas.

In regard to treatment it must be remembered that atonic dilatation is mostly a part of a neurasthenic condition. In cases which resist tonic treatment a modified Weir-Mitchell course is indispensable, including rest in bed for from three to six weeks, with general massage and perhaps abdominal massage and faradism, with the object of strengthening the abdominal walls. Every case upon going to bed is put upon an ounce of milk every hour diluted with barley water, soda water, or lime water, and no other food is allowed so long as pain continues; but if, as is usually the case, no pain is felt in the recumbent position, the milk is increased by 1 ounce hourly on successive days, until the maximum of 4 ounces per hour is reached. Should all go on well, 4 ounces of minced chicken are allowed twice a day with a very small slice of rusk or toast. Later comes minced mutton, with the addition of a little mashed potato and custard for dinner, and cocoa and rusk for breakfast instead of part of the milk. So little by little the patient is brought round to the normal diet of three or four meals a day, and when this result is attained he is allowed to get up and is either sent home or goes away for change of air and scene. In more obstinate cases however it may be necessary to wash out the stomach every night by means of the syphon tube. Evening is the best time, as it leaves the stomach clean for the night. If milk diet should fail, then recourse must be had to minced, lightly cooked mutton, with, if necessary, a small piece of toast or rusk to be eaten at the same time. Four oz. of the mutton, gradually increased to six oz, may be given three times a day, and this will agree with some patients with whom milk fails to produce improvement. For the constipation, which is often troublesome in these patients while they are lying in bed, a capsule of cascara may be given at bed time. If the tongue be foul one or two doses of calomel or blue pill may be given, with a bismuth, soda, and rhubarb mixture, or with one containing soda, rhubarb, cascara, nux

vomica, ginger, and tincture of gentian, to be taken immediately before each meal. In cases of less severity, as measured by the duration of the malady, it may be sufficient to arrange for the patient to lie down for half an hour after each meal and to avoid fatigue, and in such cases a mixture of acid nitrohydrochlor. dil. η 15, with nux vomica, extract of cascara, ginger, and infusion of gentian, may be prescribed, to be taken immediately after each meal. Mild cases need not be dieted unless there are symptoms of gastritis, in which case fats, uncooked vegetable food of all kinds, coarse tea, and the stronger alcoholic drinks must be forbidden. But when there is no gastritis the patients may eat what they like. A light abdominal belt may be worn with advantage in some cases. In addition to what Dr. Saundby says as to the treatment which he advises, there is much that is of interest in his remarks about those forms of treatment which he does not recommend. For example, he does not place much dependence upon the various remedies which have been proposed with the object of assisting digestion, such as pepsine, pancreatin, and diastatic ferments. Again, as to surgery, the operation of gastro-jejunostomy appears a rational proceeding; but his experience of it in neurasthenic cases has not been favourable. In some cases the general condition has been worse after the operation than before. It is safer in incurable cases to provide a stomach tube, to be used with discretion.

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THE PATHOLOGICAL SOCIETY.

At a recent meeting of the Pathological Society two communications were made which are of considerable interest as showing how with increasing intercommunication between this and other countries we must expect to meet more and more with diseases which have generally been regarded as foreign to our shores. The first of these was made by Dr. J. S. Haldane, who described an outbreak of anæmia in the Dolcoath mine in Cornwall, which had been traced to infection by the *Ankylostoma Duodenale*. This outbreak had been in progress for probably seven or eight years. The disease had evidently been spread by carelessness in the disposal of excreta. These were deposited anywhere in the mine and were carried by the boots of the miners on to the ladders and thus to their hands, and as the men took their dinners in the mine the circuit was thus completed. It did not seem that the disease was conveyed by water. The infection was very widespread, the ova being found in the fæces even of apparently healthy men. The disease appeared to have been introduced from abroad, many of the miners having worked in foreign mines. Mr. Boycott showed that, contrary to the common belief, moisture hindered the development of the ova. At a temperature of 54° Fahr. these remained unchanged, but at a temperature of 90° Fahr. they developed into worms in from two to four days. How extensively the disease had spread might be judged from the fact that out of 11 samples of fæces which he had examined 10 were swarming with embryos, and the remaining one, which had been more recently passed, contained a considerable number of ova.

The other communication referred to was one by

Dr. Patrick Manson, C.M.G., in which he reported two cases of trypanosoma occurring in the blood of man. Dr. Manson seemed to think that although there was no doubt about the presence of a protozoon the malady was not the ordinary "fly disease," since the blood injected into animals susceptible to the latter did not give rise to that disease.

THROMBOSIS AFTER TYPHOID FEVER.

CLINICIANS often hesitate to accept the results of laboratory investigations as guides in practice, but the very interesting investigations by Professor Wright and Dr. Knapf, in regard to the causation of thrombosis in connection with typhoid fever, which were communicated to the last meeting of the Royal Medical and Chirurgical Society, are so strikingly in accord with certain facts, well known to clinical observers, that they are deserving of the most careful consideration, throwing light as they possibly may upon a long series of hitherto unexplained phenomena. These gentlemen set themselves to ascertain the coagulation time of the blood and its contents in lime salts in patients in the acute stage of typhoid fever, in convalescence from that disease, and in normal persons. The results of the blood examinations undertaken upon typhoid fever patients showed a general diminution of blood coagulability during the acute stage, while in convalescents there was a marked increase of coagulability. In eight cases which were examined both during the course of the pyrexia and after the return of the temperature to the normal, it was found that the coagulation time was on the average four and a half times shorter in the convalescent stage than during the course of the fever. In four of these cases the blood coagulation was abnormally rapid, and, in each of these, femoral thrombosis had taken place—these being the only cases among those examined in which it had occurred. Turning now to the estimation of the calcium salts in the blood, it was found that the average proportion of lime salts was in the case of convalescents from typhoid fever about twice that in normal blood. The presence of these two mutually related conditions—namely, increased amount of lime salts in the blood and increased coagulability—during the convalescent stages of typhoid fever, would seem then to afford a probable explanation of the well-known tendency to the occurrence of thrombosis at that stage of the disease, and here we come to the practical application of the theory. For whence comes this excess of lime salts, upon which depends the increased coagulability to which the tendency to thrombosis is due? The answer to this important question, according to the authors of the paper, is that this excess of lime salts is probably derived from the milk which for the most part constituted the exclusive dietary of the patient. Cow's milk contains 1 part in 600 of CaO, as compared with 1 part in 800 contained in lime water. This explanation receives support from several other observations, for if the milk dietary of the typhoid fever patient is the key to the frequency of thrombosis in the period of convalescence, a clue has probably been obtained to the resolution of other problems, as for example the frequently beneficial action of a milk diet on "serious hæmorrhage" from the kidney, and the comparative rarity of thrombosis after