

this case were to be a bar to operation in any case which may seem suitable for it, but we need to know all about such cases, and, successful or not, their publication is necessary. And although in this instance the trephining of the spine was merely a sort of episode in the course of a history of pressure paraplegia, the case is assuredly not without interest, or unfit to be numbered with those which have been already placed on record.

INTENSE HYPERÆSTHESIA OF THE STOMACH, ASSOCIATED WITH AN EXCESSIVE FORMATION OF ACID.

By J. CLEASBY TAYLOR, M.B., C.M. EDIN., M.R.C.S.

I AM induced to relate the following case on account of the long duration and severity of the symptoms and their relief by very simple remedies.

G. F—, twenty years of age, occupied in a London office, came under my care on Jan. 23rd last, with a history of intense abdominal pain of a duration of two years and a half, unknown as to its cause and unrelieved by any remedy. The family history was very good, but with a tendency to gout on the father's side. Before the commencement of the present illness there was nothing particular in the history of the patient. Without any exciting cause he began to be troubled with pain in the epigastric and left hypochondriac regions. The pain from the beginning was always severe, with a tendency to be worse during the night, and to disappear or abate during the day. Sometimes he would be free for a week or more; but the symptoms always returned with their usual vehemence. Latterly the intensity of the pain seemed to have been increasing. The locality appeared to have been always the same, and to be represented by the outer two-thirds of the left costal margin and downwards for about two fingers' breadth. If a paroxysm increased in violence, pain began to be felt in the lower dorsal region, and as it grew worse pain spread upwards in a line along both sides of the spinal column, and when at its worst the sensation was described "as if a red-hot needle was being run up and down the middle of the back." This was localised as being directly beneath the neural spines of the vertebral column. There had never been any increase of pain on pressure, nor had pressure ever relieved a paroxysm. During the short intervals of pain he would be fairly well, and put on flesh, but on the return of pain appetite and sleep would go, with consequent loss of weight. There was no history of jaundice, vomiting, nausea, distension, hæmatemesis, flatulence, or waterbrash, and most emphatically was I informed that never had it been possible to detect any relation between pain and food, nor had different varieties of diet affected the pain in the slightest. The only other point in the history was that in June, 1889, there had been an ill-defined febrile attack lasting some three or four weeks, and since then the pain had been more or less constant, and the patient gradually going downhill.

On examination I found G. F— to be 5 ft. 10 in. in height, and to weigh 124 lb. The features had a blue, pinched appearance the hands were blue and cold, the skin dry, harsh, and shrivelled, with rather a tendency to eczema. His expression, with the lines of pain, and a stoop he had contracted gave him the appearance of an elderly person. The tongue was fairly clean, giving no indication; the temperature was subnormal, even in the evening; the pulse was 80, rather feeble. There was a tendency to asthma, but no cough or nocturnal perspiration. The appetite was bad, and there was also a tendency to constipation. The circulatory system was found normal; no marked anæmia. There was perfect expansion of the whole chest; no sign of any deformity; no dulness on percussion, but on auscultation rhonchi were heard here and there over the whole of the lungs; vocal resonance and fremitus were normal. Inspection, palpation, and percussion of the abdomen failed to elicit anything; pressure certainly had no effect on the pain. The urine was straw-coloured, neutral, and slightly acid; sp. gr. 1010. On coming under my care, I tried various tonics, antacid, antiseptic, anti-spasmodic, and cathartic remedies, in conjunction with various diets, but all to no purpose; in fact, the patient

grew gradually but steadily worse. Opium by the mouth having no effect, on Jan. 27th I began hypodermics of morphia; at first one-sixth of a grain, but soon one-fourth of a grain was required, and repeated two, three, or more times in the twenty-four hours. Even then the greater part of the time there was more or less pain. The aspect of the tongue all this time remained the same, and, as far as could be judged, food had no effect on the symptoms. As this line of treatment did not appear very successful, I proposed to wash out the stomach, but the patient after the first time refused to submit to it again. In the beginning of February I commenced to feed the patient by the rectum in order to see whether giving the stomach a complete rest would give him relief. Commencing with enemata early one morning, when free from pain, he was easy all that day, but about six in the evening a feeling of emptiness was experienced, and, yielding to the patient's entreaties, I allowed him a small quantity of weak beef-tea, but no sooner was a table-spoonful swallowed than he was again writhing in pain. Under the influence of a hypodermic, in three or four hours the paroxysm had somewhat abated, and a drink of aerated water was given, and again a severe paroxysm came on; this, though relieved by a hypodermic, yet lasted four or five hours. Early on the following morning I gave him a drink of cold water, and again a paroxysm of equal severity was brought on. Thinking over these symptoms, I decided to give an antacid, but in much larger doses than formerly prescribed. I gave bicarbonate of soda, and commenced with sixty grains, the effect was simply astonishing; in two or three minutes there was an eructation and total relief of pain. After this the hypodermics were stopped, and sixty grains of the antacid given whenever the symptoms recurred. The result was always the same—viz., relief in from three to five minutes with an eructation, but the length of time between the doses varied from thirty minutes to four or five hours. For the first few days eleven or twelve doses in the twenty-four hours were necessary, and after a week eight or nine were the average. The greater number were taken during the night, and these between 1 A.M. and 4 A.M. The result was the same whether no food was taken after 3 P.M., or whether food was taken as late as 9 or 10 P.M.

Having under my care at this time a patient suffering from persistent neuralgia of the posterior tibial nerve who had been completely relieved by a few doses of sulphonal, I gave G. F— on Feb. 24th twenty grains with a very good result. Instead of five or six doses of the antacid being required during the night, a night of almost unbroken sleep was obtained, and no antacid was required on the following day. The sulphonal was continued every night, but in diminished doses. I found ten grains were sufficient, with an occasional dose of antacid; but if diminished further or omitted, then three, four, or more doses of the antacid had to be given during the night; further than this I could not get, and my patient again seemed to come to a standstill. Finally, in the beginning of March, I fell back on my old treatment of an antiseptic, and gave three-minim doses of carbolic acid three times a day two or three hours after food. Immediately this had the desired effect. After one day's use no antacid was required; after two or three nights the sulphonal was also omitted; and in a week's time the medicine was only taken once a day, more as a precaution than being required. The diet, which previously was limited and rigorously enforced, was now relaxed, the patient being able to take without harm a greater quantity and variety of food. In addition, he began to increase in weight; the asthma, the old haggard look, the stoop of the shoulders, the blueness of the hands, the harshness of the skin, and the subnormal temperature, all disappeared; in fact, he grew into a youth again almost unrecognisable by anyone who had known him when ill. So far there has been no return of the symptoms, and he has been able to return to his work, from which he had been almost constantly laid aside for nearly three years.

The diagnosis and treatment of this case presented considerable difficulties. The patient in his illness of two years and a half had been in many and various hands, who had diagnosed tubercular disease, malaria, hysteria, &c., and who had suggested many remedies, all to no purpose. Finally, change of air to a warm climate, the *ultima spes* of so many cases, was thought to be the only chance. On observing the case I felt able to eliminate gastric ulcer, gastritis, and glandular disease of the posterior mediastinum. I was much more suspicious of glandular disease in the

neighbourhood of the solar plexus or pancreas. I could also eliminate the liver, spleen, and kidneys. Finally, I came to the conclusion that I had to deal with some functional disease of the stomach, but the remedies I tried seemed of no effect. All I appeared able to do, until the incidents of the beef-tea, aerated water, and cold water gave me the clue, was to keep the pain down with hypodermics; these incidents decided me to give much larger doses of an antacid than I had hitherto done. The effects of drachm doses of the antacid were simply marvellous, yet any less dose had little or no effect; other antacids in similar large doses were given, but none of them acted with the rapidity or gave the same relief as the bicarbonate of soda. On two occasions whilst taking the antacid the patient vomited a large quantity of watery fluid, sour smelling, each time the ejected matter being in much larger quantities than the fluid previously imbibed. The action of the sulphonal appeared not so much to give sleep as to act as an analgesic, and thus allow natural sleep, for if it was left off for a night, or diminished below ten grains, sleep was obtained, but was more broken by attacks of pain, and more doses of the antacid had to be taken in the night, but not during the following day. The action of the carbolic acid was, no doubt, an analgesic and antiseptic, preventing the fermentation that was probably the cause of the abnormal quantity of acid. When I first saw the patient the same doses of the acid appeared to have no effect, yet when given later its action was manifested after the first day. One other point of interest about the case was that opium, chloral, cannabis indica, and belladonna, whether hypodermically or by the mouth, practically failed to have any effect on the pain, and if any it was only of a very temporary character.

Las Palmas.

GASTRO-ENTEROSTOMY.

BY T. KILNER CLARKE, F.R.C.S. ENG.,
HONORARY SURGEON TO THE HUDDERSFIELD INFIRMARY.

THE following case of gastro-enterostomy, though unsuccessful, is more illustrative of the difficulties of the operation and its after dangers than the successful one I published some few months ago, the subject of which is still, ten months after the operation, in the enjoyment of good health.

Mrs. S—, aged thirty-six, a spare, dark-eyed woman, had been suffering from gastric troubles for a year, when, in consultation with Mr. Haigh of Meltham, her medical attendant, I first saw her on May 6th, 1890. During this time she had suffered much from vomiting, and had had several attacks of hæmatemesis, at times considerable in amount. For the few days previous to my visit everything she had taken was rejected. There was a tumour the size of an orange in the situation of the pylorus—i.e., on the right edge of the mesial line and extending down to the level of the umbilicus; the stomach was small, but the other organs of the body appeared healthy. The case seemed to us to be a very suitable one for either pylorotomy or gastro-enterostomy. Using a mixture of chloroform (one part) and ether (two parts) as the anæsthetic, administered by Dr. Scougal, and assisted by Mr. Haigh and Mr. Marshall, I operated on May 13th, 1890. A three-inch median incision reaching as far as the lower edge of the umbilicus exposed the lower border of the stomach and the great omentum. The tumour, which was found to be the enlarged and thickened pylorus, was firmly adherent to everything in its immediate neighbourhood. Its size and adhesions and the contracted state of the stomach rendering pylorotomy impossible, I proceeded to the alternative operation of gastro-enterostomy. The jejunum not being visible, I pushed aside the great omentum, and, turning up the lower border of the stomach, saw it lying beneath the transverse meso-colon and arising from the spine on a level with the umbilicus. Making a rent in the meso-colon I brought up the intestine, emptied some six inches of it, and isolated the emptied portion from the rest of the gut; then dropping the jejunum back into the abdomen I made an incision into the anterior wall of the stomach, an inch in length, parallel to and about an inch and a half above the greater curvature, and inserted the calcified bone plate. The second plate was then fixed

in the jejunum. On attempting to bring the two plates into apposition so as to tie the corresponding threads, I found it could not be done, as the contracted size of the stomach and the pyloric adhesions prevented my bringing the stomach wall sufficiently outside the abdomen. I therefore took out the stomach plate, sewed up the incision with a double row of Lembert sutures of fine silk, made a new incision in the posterior wall of the stomach, introduced the plate afresh, and readily brought it into close apposition with the jejunum plate. The corresponding threads were then tied and the abdominal wound closed. A towel folded to form a pad was bound firmly over the dressings and removed after forty-eight hours. For three weeks after the operation the pulse kept under 100, and 99.6° was the highest temperature. The progress of the case was briefly as follows.—First day: Very little pain; frequent slight hæmatemesis. Nutrient enemata of beef-tea and brandy every four hours.—Second day: Hæmatemesis going on; very good night; no pain.—Third day: Very good night; vomited every two or three hours till 2 P.M., when distension came on with pain in the chest and difficulty of breathing. This was relieved by fomentations and a clyster of glycerine (two ounces). After this the patient retained wine whey in small quantities and a little hot tea.—Fourth day: Wine whey and chicken broth.—Fifth day: Vomited several times; a good deal of pain in left side of the abdomen, was relieved after the application of a mustard plaster, and the appearance of some offensive discharge from the lower end of the abdominal incision. The wound was opened a little, and a couple of short drainage-tubes were introduced at its upper and lower end.—Sixth day: No vomiting for the last three days; wound discharging freely. Having fluid food and a nutrient suppository night and morning.—Eleventh day: No sickness; appetite very good; was given boiled mutton; upper tube removed.—Twelfth day: Second tube removed; slight vomiting at 8 A.M., but afterwards very well up to afternoon, when the artificial opening between stomach and intestine seemed to close suddenly. While being fed the trickling sound of fluid passing through the opening which was distinctly audible to anyone standing by the bedside whenever the patient took any fluid food and the patient's sensations of it abruptly ceased. At 10 P.M. she vomited some twenty ounces of fluids, and from this time till her death on the thirtieth day after her operation all food taken was rejected. No necropsy was permitted, and the cause of the sudden closure of the artificial opening must remain uncertain. In two at least of the failures of this operation closure of the opening has occurred. To prevent this it would be well to sew together by a continuous fine silk suture the cut edges of the serous and mucous coats of the incised viscera, and to make larger incisions into the viscera. Operators by the old method made incisions two inches in length.

Huddersfield.

ACUTE INTESTINAL OBSTRUCTION BY INTERNAL STRANGULATION; LAPAROTOMY; CURE.

BY EDWARD J. CAVE, M.D. LOND.,
SURGEON TO THE CREWKERNE HOSPITAL.

THE operative treatment of intestinal obstruction has of late years been abundantly discussed, and the lines of practice are now pretty definitely laid down. The tendency has been more and more in the direction of early surgical interference, so that now few surgeons would countenance delay longer than is necessary for a confident diagnosis; and even in difficult and obscure cases of acute abdominal trouble, where the diagnosis is still but a matter of probability, far greater disaster results from procrastination than from early operation. An experience of six years as resident medical officer in provincial hospitals has brought a fair number of patients suffering from acute obstruction under my notice, of whom some have died without surgical interference, and two have recovered when recovery seemed past hope; while of those submitted to laparotomy for obstruction from any cause whatsoever, not one has recovered save by the formation of an artificial anus at the anterior abdominal wall. I believe this disastrous experience to be by no means un-