terior of the organ. It contained 160 c.cm. of a thick grumous materia of a reddish-brown colour. The colour was not uniform throughout, but there were redder, alternating with light grey, portions throughout the mass. On standing a small quantity of yellowish-grey fluid separated out, leaving a thick pultaceous mass at the bottom. The inner wall of the cyst is smooth, except in places where the inspissated contents are adherent to it. Microscopic examination of the contents shows large numbers of degenerating red blood corpuscles, fat globules and granules, crystals of cholesterol, bright, colourless needle-like crystals, compound granular cells, yellow pigment and granular debris, and some columnar epithelial cells, occurring singly and in transversely segmented groups of three or four. Among these were some goblet cells. On the anterior

Fig. 2.—Posterior view; a, stomach; b, cyst; c, cyst; d, cyst on posterior wall; e, cyst; f, pancreas; g, colon; h, cyst; i, cyst; j, jejunum.

surface of the stomach are the remains of an irregular cyst cavity opened at the time of operation; the greater part of its interior is smooth, but the lower part is rough and irregular from papillomatous ingrowths. This is continuous behind the omentum with a multi-molecular cyst irregular in outline, with some whitish caseous-looking material lining its cavities. Some of the smaller loculi show a black pigmentation. A small cyst with hæmorrhagic contents was found behind the pyloric end of the stomach. The cavity of the stomach was greatly reduced in size from encroachment on it of these cysts, which formed prominences beneath its mucous coat. It consisted of a long, narrow slit-like space which comfortably admitted the extended hand. The mucous membrane showed no inflammatory action, was thick, and the glands prominent.

The large unilocular cyst in the jejunum contained 150 c.cm. of material similar to that before described. This cyst is beneath the peritoneal coat, and is quite smooth in outline. Its long diameter parallel with the long axis of the bowel is $3\frac{1}{2}$ inches, its short diameter $2\frac{1}{2}$ inches. It begins at the mesenteric attachment, and extends halfway round the circumference of the gut. Its inner wall is quite smooth and glistening, except in places where the inspissated contents are adherent, and at one part where there is a small papillomatous ingrowth. The cyst is attached by old fibrous adhesions to the descending colon. A smaller cyst in the jejunum, containing about 60 c.cm., is similar in structure to the large one, but its contents are quite fluid, lighter in colour, and comprise immense numbers of bright, glistening bodies, visible to the naked eye. Microscopically, the contents consist of granular debris, fat globules and granules, crystals of cholesterol, remains of epithelial cells, and a small number of degenerated red blood corpuscles. The walls of the cyst consist of laminated connective tissue, quite vascular in some parts, with considerable dark pigmentation from disintegrating hæmoglobin. At places on the inner wall are to be found a few epithelial cells, probably the remains of the lining membrane of the cyst. In other places there are distinct papillomatous ingrowths into the cyst cavities, showing the structure of adenomata at times assuming a malignant type.

As no epithelium is normally found in the situations of these cysts, it would appear that they originated after the fashion of dermoids from inclusions or embryonal rests left over in the process of development of the alimentary canal. The presence of so large a quantity of blood is not readily explained by the vascularity of the cyst wall.

A review of British and American medical literature found records of only four cases at all similar. In the *Transactions of the Pathological Society of London*, 1857, vol. viii, p. 218, Mr. Hutchinson describes a cystic tumour of the stomach the size and shape of a walnut. It was near the pylorus between the peritoneal and muscular coats of the organ, and was con-

stricted in the centre like an hour glass, where it passed through the muscular coat. It contained half an ounce of thick, opaque, pinkish fluid, glistening with plates of cholesterol. No microscopic examination of the cyst or its contents was made. In 1869, also in the *Transactions of the Pathological Society of London*, vol. xx, p. 173, Green reports an encysted accumulation of blood between the peritoneal and mucous coats of the small intestine. The accumulation was 2 inches long, had a blue-black gangrenous appearance, situated about the middle of the ileum, the rest of the gut being perfectly healthy. The cyst was multilocular; the individual cavities being about the size of a grape, and communicated with each other in many places. Their contents appeared to be dark fluid blood.

Finell, in reporting a case of cancer of the pylorus with secondary nodules in the liver, mentions that a cyst the size of a fetal head was found attached by a narrow pedicle to the pyloric end of the stomach; it was filled with a reddish fluid. No microscopic examination was made.¹

Another case is described by H. H. Read, of Halifax,² in which a man, aged 62, died after an illness of five weeks. At the necropsy a large cyst was found completely enveloping the stomach; it had a thin serous covering, and contained, besides fluid, numerous lumps of fatty substance intermingled with black streaks of extravasated blood. In this case the presence of the cyst accounted for the symptoms during life. In the three cases first mentioned the cysts were found accidentally at necropsy in cases of death from other causes.

REFERENCES.

- ¹ *New York Medical Journal*, 1874, vol. xx, p. 641. ² *New York Medical Record*, 1882, vol. xxi, p. 628.

THE FATE OF BONE REIMPLANTED AFTER TREPHINING.

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THE following case is of interest, as showing the destiny of bone reimplanted after trephining, and the consequences that may result from it in cases of traumatic epilepsy:

The patient, a sailor, aged 47, was admitted into the London Hospital on May 23rd, 1897. In March, 1894, he had fallen from a yard-arm, and sustained a severe injury to the left parietal region. The next six months he spent in hospital at Trieste. After that he went to sea again, though he was far from well, and suffered from constant pain in his head. In November, 1895, he began to have fits, as many as five or six in a week, affecting the right side of the face and body. At the same time he lost power over the right arm and leg, and became aphasic. For this he was trephined at San Francisco in April, 1896. After the operation the paralysis and the aphasia improved, though they did not disappear completely, and the fits ceased for a time. In February, 1897, the fits commenced again. At first there were only two or three in the week. Latterly there had been as many as one or two each day.

On admission it was noted that there was some loss of power over the right side of the body. The right leg was dragged in walking, and the patient could scarcely support himself upon it. The grasp of the right hand was very weak. There was no paralysis of facial or ocular muscles. Sensation was impaired, roughly speaking, over the ulnar side of the forearm and the outer side of the thigh, but the anæsthetic area did not correspond with the distribution of any nerve. The superficial reflexes were exaggerated, especially upon the right side. The skin over the spine was hyperæsthetic. Optic atrophy with choroidal pigmentation was well marked in the left eye, and evident, but not so far advanced, in the right. There was no incontinence of urine or fæces.

On the head there was a wide semicircular scar over the left parietal region. The scalp inside the scar was soft and yielding under pressure. The bone had evidently been removed over an area the size of the palm of the hand, and replaced after having been divided into fragments. Two spots were especially tender—one about the centre of the trephined area, the other at the posterior extremity of the scar.

The patient during the first three weeks had one and sometimes two or three fits each day. Any sudden emotion or pressure upon the tender spots on the scalp would bring one on. They began with a feeling of pressure and pain on the top of the head. The patient was unable to move or cry out. Then the head turned to the right, the right hand began to twitch, and the movements extended in order to the right arm, right leg, left leg, and left arm. The right hand continued to twitch for some time after the general fit had subsided. The teeth were clenched, but as a rule the facial muscles did not twitch. There was no foaming at the mouth. The lips and tongue were not bitten. Consciousness was lost sometimes, and the patient usually remained dazed for an hour or two after the fit had subsided. In the intervals the patient's mental state was fairly clear, but he was throughout exceedingly difficult to manage. There was nothing noteworthy about his other organs.

As the patient did not improve upon bromides the scar was explored with the view of ascertaining if there was any exciting cause that could be removed. The scalp was reflected over approximately the same area as before; the posterior angle examined first, and a portion of the sound bone at the edge removed, without anything being found. The dura mater over the old wound was covered in with a mosaic of bony fragments, each about three-quarters of an inch in length and half in width. They were slightly adherent to the scalp above and the dura beneath, but they could be detached with the greatest ease. In one or two places where they were in contact some very narrow bridges of bone connected them together. The upper surface was smooth, the lower studded with little pits corresponding to granulations springing from the soft structures below. The edges, except where the bridges joined them together, were smooth, rounded, and very thin. The greatest thickness was not more than that of thin cardboard, and the absorption seemed to have affected the outer and inner tables in an equal degree. In the centre, corresponding to the sensitive point upon the scalp, one fragment of bone had slipped beneath another, and the underlying one had grown out into an irregular, toothed projection of intensely hard bone, as large as a small pea. This fitted into a little pit in the dura, which here was very much thickened and condensed. The rest of the mosaic was not interfered with, and the scalp was laid down again to cover it in. The patient recovered without a bad symptom, and during the six weeks he remained under observation no more fits occurred.

In such a case as this it is not possible to say definitely that the fits were due to the irritation caused by the bony outgrowth. It is true that the dura underneath it was quite different from the rest, resembling dense scar tissue; that pressure upon the overlying scalp always caused pain, and sometimes brought on a fit; and that removal was followed by cessation; but though this renders it highly probable, it cannot be considered proof. It is well known that after similar operations epileptics not infrequently enjoy a temporary remission. It does show, however, that the re-implantation of extensive areas of bone in broken up fragments is of little service to the patient (for there can be no doubt that in this case absorption will continue until the fragments are completely removed), and that it may occasionally prove to be a very serious source of trouble.

A CASE OF STRANGULATION OF TWO SEPARATE LOOPS OF BOWEL.

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IN THE BRITISH MEDICAL JOURNAL of October 9th, 1897, Mr. Alexis Thomson reports a case of stricture of the intestine following upon a strangulated hernia, and referred to other similar cases, remarking both upon the rarity of the lesion and the still greater rarity of its successful treatment. Only two days before this date there was admitted into the Victoria Infirmary a case similar in many ways to those above referred to, but differing in one remarkable respect, which renders its record I believe almost, if not quite, unique. As will be gathered from the following report, the peculiar features of the case lay in the strangulation of a loop of ileum

through an opening about the region of the umbilicus, while a second loop existed within the abdomen, also strangulated apparently by old adhesions, the result of frequent hernial protrusion and partial strangulation.

Fig. 1.—Showing two separate loops of ileum strangulated, one through an orifice at the umbilicus, the other by adhesions within the abdomen.

Abstract of report taken by the resident assistant, Dr. Vost: Mrs. S., aged 45, stated on admission to the infirmary on Thursday, October 7th, 1897, that she had suffered for two years from a swelling about the level of the umbilicus. It first appeared one day while washing when she was seized with vomiting which lasted for two days, and ceased on partial disappearance of the swelling. Since this first attack she has at intervals of about a fortnight or three weeks had several similar ones. She had always noticed during these seizures that the lump became hard and her bowels did not move. As soon, however, as the lump became soft again, all her symptoms disappeared. Her present seizure commenced on Thursday, September 30th, when severe vomiting set in, and the lump gradually became very painful. Between the date of commencement of her attack and her admission to the infirmary her vomiting has been incessant, neither flatus nor fæces have passed, and the lump has become more inflamed and painful. On admission the vomit is found to be faecal, the abdomen distended, and the swelling, which is situated a little above and to the left of the umbilicus, is covered by cedematous and inflamed skin.

Operation.—A vertical incision was made over the most prominent part of the swelling, and the hernial sac opened. Fætid pus escaped and some grey sloughs of fibrous tissue. It was found that a gangrenous loop of bowel existed in a sac formed by a mass of omentum, itself in a gangrenous condition. The omentum was removed and the sac washed out and stuffed. The constricting ring was then divided and the gangrenous loop withdrawn. It was easy to pull out the bowel at one end, but it could only be withdrawn to a limited extent at the other. The gangrenous loop was excised and the bowel ends united by a Murphy button. As one half of the button did not fit comfortably (that inserted into the portion of the gut which could not be freely withdrawn) it was thought advisable to leave the loop *in situ*. The parts around were packed with gauze, and the wound dressed so as to prevent any pressure upon the exposed bowel. The patient rallied from the operation slowly and incompletely. The next morning at 10 A.M. she was seen to be much weaker, and although there was no vomiting, there had been no passage from the bowels of either fæces or flatus. There was occasional hicough. Collapse gradually increased, and the patient died in the afternoon.

Post-mortem Examination.—On opening the abdomen it was found that the segment of the canal, into which at the operation one-half of the button fitted easily, was part of the ileum at a distance of about 4½ feet from the cæcum; while the other segment led in about 3 inches into a loop which was matted together and constricted at its two ends by plaques of tough fibrous material. The portion of the gut between this loop and the button, as well as the loop itself, was gangrenous.

REMARKS.

Neither of the two prominent pathological conditions found in this case, when taken separately, present anything very remarkable. The loop strangulated at the umbilicus is typical of its kind, and the loop strangulated within the abdomen by old adhesions is, although of rare occurrence, not without parallel in the records of various writers. Thus, Jonathan Macready, in his *Treatise on Ruptures*, quotes some three or four cases of obstruction after strangulation due to a