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

kinked and matted loop. But these two features taken together constitute, so far as I have been able to ascertain, a case quite unique in the records of strangulated herniæ.

There can be but little doubt that the constantly-recurring attacks of temporary strangulation from which the patient suffered for a period of two years were due to the excursions of the second or intra-abdominal loop. And inasmuch as these attacks sometimes lasted for two days, it is not unlikely that they were accompanied with a certain amount of inflammation in the sac, the result of which would be to permanently cement together the coils thus engaged. It is not possible to say whether the loop which was found strangulated at the umbilical orifice had presented there before or whether this was its first excursion. In any case, however, to it must be attributed the patient's final symptoms; and whatever part the second loop may have played in causing obstruction, it seems more likely that the effects produced by it arose subsequently to, and possibly as the result of, the primary conditions brought about by the strangulation of the umbilical loop. This explanation is rendered the more probable from the fact that while the portion of bowel between the two loops did not present at the operation a perfectly normal appearance, or such as one would have expected on the proximal side of the strangulated loop, it held no comparison to the almost gangrenous condition in which it was found at the *post-mortem* examination.

At the operation we were misled by believing that the reason why the supposed proximal end of the bowel could not be withdrawn was that we were dealing with the upper part of the jejunum, and therefore prevented from further extracting it by the duodenum and its suspensory ligament. As, however, was revealed by the *post-mortem* examination, the real preventative to withdrawal was the second matted loop. Whether the result might have been different had we discovered at the operation the presence of this second obstructive loop, and removed it also, it is not possible to say. The somewhat extreme condition of the patient, however, due to the long delay before operative relief, might reasonably be assumed to render very doubtful the success of an enterectomy.

By a mistake in the drawing, the second loop is shown as free except at its neck, whereas the whole loop was matted together.

ON THE IMMEDIATE CORRECTION OF ANGULAR DEFORMITY OF THE SPINE.

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For some time past, following the example of my colleagues at the City Orthopædic Hospital, I have used Chance's splint for every case of tuberculous disease of the vertebræ. The simplest form of the splint is shown in Fig. 1, which represents the back of a little boy I showed at the meeting of the Clinical Society, November 26th, 1897. Six months ago the patient when under treatment for tuberculosis of the right carpus first showed symptoms of tuberculosis of the spine. There was a localised lateral deviation of the upper lumbar vertebræ, accompanied by rigidity and pain. The splint was applied as soon as possible, and the boy has now worn it for six months. So long as the apparatus is worn, the patient is able to run about without any discomfort, and during six months no appreciable increase of deformity has taken place.

This case is one of several that I have now under my care, and is an example of a case in which the patient need not be confined to bed. When the disease is more active, I apply the same splint and place the patient on a prone couch until all signs of activity have passed away. When the patient is to be washed he is placed on pillows in the prone position, the splint is then easily removed without disturbance of the diseased spine. My experience of this method of treatment is now a considerable one, and, as far as London children are concerned, I cannot hope for a better. I need hardly mention that the splint requires to be readjusted from time to time by the surgeon.

There is, however, one circumstance that led me to study with interest the reports of Calot and others upon the newly-revived operation for immediate reduction of hump-back. It is this: In many children after wearing this splint for two or three years all evidence of disease has ceased. The spine is firm and free from tenderness; some degree of deformity may remain, but it is nearly always less than it was at the beginning of treatment. In some such cases, especially if the angle be in the upper dorsal region, although the disease has been cured, the residual deformity increases when the splint is left off: as the mothers put it—"the hump grows with the child." I was led to hope that, if, in suitable cases, the deformity were corrected before applying the splint, the treatment might commence with a straight back, and if recurrence of the deformity could be prevented the patient after two or three years might be able to leave off the splint

Fig. 1.—The back of a boy showing Chance's splint applied for lumbar caries. (From a photograph by Mr. C. P. Allen.)

without fear of the hump growing from an altered direction of growth in the sound parts of the spine. This consideration led me to perform immediate correction on a little girl, aged 2½ years in August last. The case was a favourable one, of two months' duration, and uncomplicated. There was an angle of about 20° opposite the sixth dorsal spine. The operation was easy, and the patient was put up in plaster strengthened by an iron framework extending from the head to the pelvis. The child seemed to be in no way disturbed by the operation. At the end of six weeks the plaster cuirass had to be removed on account of the presence of vermin which had appeared in spite of careful nursing. We then found that most of the deformity had recurred. The spine was again straightened, and the child put up on a metal plaster apparatus so arranged that the spine was over-extended, and that extension could be applied to the arms and the lower limbs. The patient was perfectly comfortable in this position for a month, when the spine was again examined. The deformity was certainly diminished but not removed.¹ The part was now free from tenderness, and on giving an anæsthetic it was found that there was now more resistance, pointing to some bony ankylosis having taken place, so the remaining deformity was not corrected. The patient was replaced in the apparatus. A fortnight later a Chance's splint, with an occipital piece as shown in Fig. 2 was applied.

At the present time—three and three-quarter months after the first operation—the child can sit up without discomfort and without fatigue.

The results of the operation in this case are a slight improvement in the deformity and a certain amount of repair, as shown by ankylosis; but neither the improvement in shape nor the degree of repair is greater than I should have expected from careful general treatment, combined with the use of a Chance's splint. It may be that a better mode of