to us by Dr. Napier, in a clinical history, which appears as a separate part of this communication.

At the time of my visit, the patient was much emaciated, could take no nourishment, and vomiting had been almost continuous for the last forty-eight hours. It was obvious that, if any surgical interference were required, there could be no great delay.

On examination, I found an ovoid tumour extending from the lower margin of the costal cartilages, to about an inch above the level of the umbilicus. Its situation corresponded with the linea semilunaris, below which it lay, with a measurement across, at the upper end, of about three inches. The tumour could be moved slightly from side to side; but the movement was communicated to the abdominal walls, to which it seemed to me to be adherent. It was firm and resistant, with an obscure feeling of deep elasticity, rather than fluctuation. The opinion I formed of it was, that it was an enlarged thickened gall-bladder, adhering to the abdominal walls; probably containing imprisoned calculi. And I stated that, in my opinion, it was a clear case for an incision of an exploratory kind. In this, Professor Gairdner and Dr. Napier concurred; this being the view they had already discussed before sending for me.

Accordingly, on the morning of January 30th, Mrs. T. was put under the influence of ether, that anæsthetic being chosen in consequence of the feebleness of the circulation.

I made an incision, three inches long, from the edge of the costal cartilages opposite the site of the gall-bladder, extending perpendicularly downwards to nearly opposite the umbilicus. After cutting through the skin and fascia and muscular walls of the abdomen, I came to a white, dense, tight membrane. To the knife, it felt tough and rigid; and, on dividing it by careful application of the instrument, I became aware I was cutting into a condensed fibrous tissue, evidently the bond of union between the gall-bladder and the abdominal wall. Proceeding carefully, I at length opened a cavity, from which some dark brown purulent fluid escaped. Though discoloured, it was not foul or putrid. I now passed the point of my finger into the cavity, and found a number of smooth gall-stones, lying in a bag with smooth soft walls. I had no difficulty in removing them with the point of my finger and the scoop-end of a director. The form of the cavity was pear-shaped; it admitted the whole length of the forefinger, and was evidently the gall-bladder. I washed it out with tepid water, and then carefully explored with a fine probe, to ascertain if the cystic duct could be entered; but no orifice could be found. I therefore concluded that the duct must have been occluded by the inflammatory process, by which the gall-bladder had become adherent to the wall of the abdomen. A drainage-tube was introduced into the cavity, and the wound was lightly dressed with absorbent gauze.

It is unnecessary to go into details as to the progress of the case. The relief to the agony, distress, and sickness and vomiting was instantaneous. Sleep and appetite returned, and Mrs. T. was practically well in a fortnight, getting out of bed during the day, and relishing her food. Suddenly, on the evening of March 8th, Mrs. T. had a rigor, followed by feverishness and a distinct attack of jaundice. Next day she was better; but the wound, which was not quite closed, became inflamed, and the surrounding tissue swollen. On the third day, a gush of pus, tinged with bile, took place; and this was followed by the spontaneous discharge of a gall-stone. From this attack she rapidly recovered, and has continued quite well till now (April 2nd); except that, two days ago, without any pain or any indicative symptoms, two more gall-stones came away in the slight discharge from the wound, which still continues.

Query: Are these gall-stones being formed in the common duct, and finding their way into the gall-bladder by a fistulous opening, the result of an ulceration which did not exist at the time of the operation?

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.—The fifth annual meeting of the governors of this hospital was held on April 15th. The report stated that, during the past year, 1,142 patients were treated for skin-disease, 810 for venereal disease, and 45 for miscellaneous diseases. The attendances were 13,616. There had been an increase over last year in annual subscriptions of £30 11s. After referring with regret to the death of Dr. Russell and Dr. Heslop, the report showed that the necessity for larger premises became yearly more urgent; and that, after careful consideration, it was decided to build a new hospital, with provision for beds and baths, as originally intended. For this purpose, a piece of land in the centre of the town had been secured. The cost of erecting and suitably furnishing the building was estimated at £5,000. Towards this sum, legacies, donations, and the surplus of ordinary income amounted to £1,200. The Committee earnestly commended the matter to the public.

CASE OF IRREDUCIBLE INGUINAL HERNIA TREATED BY ELASTIC PRESSURE.

By WILLIAM ELDER, M.B., C.M. Edin.,
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THE following case of irreducible inguinal hernia, treated by elastic pressure, by means of pads of cotton-wool and an elastic bandage, may be of interest to the readers of the BRITISH MEDICAL JOURNAL.

A. B., a man, aged 56, came to Professor Chiene, of Edinburgh, for advice on July 1st, 1885, complaining of irreducible inguinal hernia on the left side. He stated that he had had a small hernia for more than thirty years, but it had never given him much trouble till within the last few months, when it had been coming down oftener than usual, and had been more difficult to reduce. He had never worn a truss, nor used any means to prevent the hernia from coming down. He said that he was always very particular in getting the bowel reduced immediately he felt it down, but that he did not think there was any danger of strangulating the omentum. He did not consult a medical man till the day before (June 30th), when it had become very much enlarged and irreducible. The surgeon advised him immediately to put himself under the care of Professor Chiene, which he did.

On examination, the swelling was found to consist partly of bowel and partly of omentum. The omentum was much indurated; so much so, that it felt nearly as hard as a stone. There was one large mass larger than a goose's egg, and several smaller ones. There was no pain on pressure. On palpating the tumour, a sort of crepitating sensation was felt, as if there were fluid in the sac. An attempt was made to reduce the hernia, when the bowel was reduced, but very little difference could be made on the omentum.

As there was thought to be danger of strangulation, ice was applied to the part, and the patient kept absolutely at rest on his back. He was kept thus all next day; and, on the evening of that day, he was given chloroform, and an attempt was made to reduce it. This, however, was unsuccessful; and, next day, July 3rd, Professor Chiene applied elastic pressure by means of a padding of salicylic wool, and an elastic bandage in form of a single spica.

On removing this, next day, July 4th, the hernia was found much reduced in size, and all the crepitating sensation was gone on feeling it. The elastic pressure was reapplied, and the hernia improved, becoming gradually smaller till July 10th, when the largest mass was somewhat larger than a duck's egg, and several a little smaller. The masses, however, were softer, and not so much indurated. Next day, July 11th, however, the hernia had increased in size, and the crepitating sensation was again felt. This was thought to be due to the bandage having slipped off the swelling during the night, which it had always a tendency to do. The bandage was reapplied, but not so tightly as before, as it was a little painful.

It was kept on till July 14th, when the hernia was smaller than it was on July 11th, but not in a better state than on July 10th. The bandage was reapplied, and slowly and gradually the swelling became smaller, till July 17th, when I applied the bandage in a different manner, which I will afterwards describe.

This bandage remained on till July 20th, when it was found that the swelling had almost entirely disappeared. The omentum, however, had all gone back, and the swelling that remained was felt to be due to a thickening of the tissues round the cord and the external abdominal ring. The bandage was reapplied; and, next day, this thickening had completely gone, and no difference could be felt on the two sides, except the canal, which could be felt to admit the point of the index finger. The bandage was kept on till a truss could be fitted, which was done on July 24th; and, next day, the patient was able to be up, and gradually regained strength. He is now (May, 1886) as well as ever he was in his life, and the hernia has never been down again.

The two points which, I think, are worthy of notice in this case, are: first, the efficacy of the elastic pressure in the treatment of irreducible hernia; and, secondly, the method of applying the pressure. I think the first of these is quite evident to everyone, namely, that continued elastic pressure, carefully applied, must reduce an indurated hernia in size, and, by reducing its size, must make it more easy to reduce. Secondly, as to the method of applying the pressure; at first, the bandage was applied as a single spica, but it was found that the swelling was very apt to make its way out below the bandage, by passing towards the middle line. On July 17th, however, I applied the bandage more in the form of a double spica, although not a true double spica. I began the bandage at the right anterior superior iliac spine, crossed

the abdomen to below the left trochanter major, then round the thigh and across the perineum to the right groin and right anterior superior iliac spine, where it was pinned to the beginning of the bandage. Then it was wound round the back, above the iliac crests, to keep it from slipping down. I then brought it down over the hernia, on the left side, across the perineum, and round the right thigh, over the front of the abdomen to above the left iliac crest, and round the back to the right anterior superior iliac spine, where the bandage began. I then went on as before, following the same course, but making the bandage above slightly overlap the one below, until I got all the pubic region covered, except a small space in the middle line for the penis. This opening, which always weakens the pressure, must not be too large, otherwise the hernia will tend to escape through it. I consider that it was the altering of the method of putting on the bandage, that had such a wonderful effect in this case. This bandage had only been once on when the hernia disappeared.

Another point is, that enough wadding must be used, in order that, when the bandage is on, it may not pain the patient, and in order that the pressure may be equal all round the hernia. It is not necessary to put the bandage on very tightly, as it gradually becomes tighter the longer it is kept on. The different layers of bandage must be pinned to each other, to prevent them from slipping out of their place.

CASE OF CERVICAL SPINA BIFIDA, SUCCESSFULLY TREATED BY INJECTION.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,

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A MALE infant, ten weeks old, labouring under spina bifida, came under my care in January, 1886. The tumour was circular in outline, about half the size of a small orange. It occupied the middle cervical region, and was invested with healthy skin, except over a limited area at the summit, from which part a transparent process of the membranous sac protruded. The margin of the skin around this process was well defined. The tumour was tense, and the base broad and fixed. Immediately below it, there was a central depression, marking a considerable deficiency in the neural arches. When the infant cried, a free expiratory impulse occurred in the sac, synchronous with the impulse at the fontanelle. In the prone position, the tension of the tumour subsided; and, on pressure, the membranous protrusion became quite flaccid.

The treatment consisted in injecting, near the base of the tumour, half a drachm of Dr. Morton's iodo-glycerine solution. For some days after the operation, the infant manifested much fretfulness, and some irregular twitching of the limbs occasionally occurred. The slightest movement of the head appeared to cause considerable distress, and the whole tumour looked swollen and congested. This inflammatory stage was soon followed, however, by a brownish discoloration of the skin, and a gradual shrinking of the sac. At the end of six weeks the tumour was shrivelled to the size of a small marble. The remnant of the subcutaneous portion is now firm and immovable, and the membranous process is a mere nodule, covered with a thickened cuticle of the same colour as the surrounding skin.

REMARKS.—The case is recorded simply as another example of the value of the treatment by injection. The intrinsic character of the tumour is, of course, a matter of uncertainty. It may have consisted only in a protrusion of the spinal membranes, or it may have been a protrusion of the membranes, together with the spinal cord and its nerves. It is impossible, in the living subject, to ascertain the exact relation between the sac of a spina bifida and the important nervous structures with which it is connected. As a general rule, however, the size and position of the tumour yield very little information on this important question. Some evidence respecting the contents of the sac can be obtained by a careful examination of the surface of the protrusion. A median longitudinal furrow, or a depression near the summit, is a strong indication of an intimate association with the spinal cord. In this case, there were no furrows or depressions on the surface; still, the general characters of the tumour certainly pointed to the conclusion that the nervous structures were involved in the sac. The sessile base, the free communication between the sac and the spinal canal, and the size of the cleft, which extended to the bodies of several vertebrae, are indications that the tumour was really a meningo-myelocoele. The absence of any depression on the surface renders it probable that the cord and the nerve-roots were not extensively incorporated with the structure of the tumour, and that they did not extend into its posterior wall. They may have been only con-

nected with the mouth of the sac; and, in this position, a considerable portion of the sac and its fluid contents must have been situated above them.

The infant was well nourished, and otherwise healthy. In every case of spina bifida, the constitutional condition demands as much consideration as the extent of the malformation; for, in estimating the probable result of surgical interference, a favourable state of the system, marked by the absence of other disorders and deficiencies, really appears to be of more practical importance than the external characters and the position of the protrusion.

CASE OF EXTENSIVE FRACTURE OF SKULL: TREPHINING: RECOVERY.

By T. LAW WEBB, M.R.C.S., L.R.C.P.Lond.

ON May 9th, 1885, E. J., a boy, aged 10, fell from a tree, about twenty feet, into a ditch, striking his head against a stone. He lay undiscovered until the following day, at noon, exposed to rain and extreme cold for twenty hours. When found, he was unconscious, and half naked, having partially undressed himself.

May 10th. When I saw him, he was cold, but partially conscious, answering questions fairly correctly when aroused. There was great swelling and puffiness over the whole of the right side of the head. He kept continually saying, "Take that hat off," and tearing at something which he imagined to be on the injured spot. Temperature 96°, pulse 80, full. I ordered brandy and warm milk. He took liquids freely, and slept at intervals. 10 p.m. His body was warmer; other symptoms were much the same. A depressed fracture was felt at the anterior part of the right parietal region. The pupils were equal, and contractile; speech was slow and thick; he vomited twice.

May 11th, 8 A.M. He was much the same, but less easily roused; he was continually grinding his teeth; he was not so rational; the bowels acted freely; severe ecchymosis of the right eye appeared. 3 p.m. Pulse 85, temperature 97°. He was worse; could hardly swallow, fluids running out of the corners of his mouth. After a consultation, I determined to trephine.

On incision, the fracture could be traced from the anterior border of the parietal bone to the occiput. Its upper margin was depressed, especially in front, the spot selected for trephining. Blood was flowing rather freely from the fissure. It being found impossible to elevate the whole of the portion depressed, the edge of the upper piece, where most driven in, was cut away, and six small pieces of bone removed. Bleeding from inside the skull ceased, much clot having been removed from beneath the scalp; the wound was closed and dressed antiseptically. 6 p.m. Pulse 80, very weak; temperature 98°. There was rigidity of both arms. He was very drowsy; he had wetted the bed. 11 p.m. He had rallied. Pulse 85; temperature 98°. He moaned, and complained of pain in the head, but slept at intervals.

May 12th, 8 A.M. He was about the same. 10 p.m. Pulse 90; temperature 96°. He lay always on the left side.

May 13th, 8 A.M. There was more swelling of the face. He was more conscious, and in great pain. He continued to wet the bed. 3 p.m. Vision was entirely lost. 11 p.m. He was sleeping a good deal. Pulse 88; temperature 99.5°.

May 14th, 8 A.M. Pulse 90; temperature 99°. The swelling of the face was less. 10 p.m. He had less pain, but still said "he could not see." He could, however, perceive light. Pulse 100; temperature 99.5°.

May 15th. The wound was suppurating freely. Pulse 88; temperature 99°.

May 16th. Pulse 80; temperature 98°. He was more rational.

May 17th. His condition was the same. The edges of the wound were pale and sodden.

May 19th. He was very hungry, eating all day.

May 20th. His state was the same. Pulse 100; temperature 99°. His mind was clearer.

May 21st. He was not so well; was much quieter. He had headache. Pulse 120; temperature 102°.

May 22nd. He was better. The wound gaped, exposing bone. Pulse 86; temperature 98°.

May 24th. The left arm trembled and twitched. There was considerable loss of co-ordination in the entire limb.

May 26th. He was better in every way; and clear mentally.

May 30th. The trembling continued. He vomited twice.

After this date, all the symptoms steadily improved. Vision gradually became normal. The wound healed soundly, all weakness of the left arm disappeared, and the boy made a complete recovery.