for about three hours, I deemed it better surgery to saw off the projecting portion, which I did, and then brought the arm and forearm into proper relative position. I dressed the aperture with water-dressing, and applied angular splints, and made the limb look quite nice. But, on the following day symptoms came on which caused the necessity of redressing the wound, readjusting the splints, and applying cold wet cloths; and, by the third day, great irritative fever, great swelling, and discharge of bloody serosity had resulted. I had to take off all my neat and nice appliances, to apply cold lotions, etc. On the twelfth day, from some unknown cause, the discharge became alarming—it had the colour of blood, but yet was not perfect blood or perfect hæmorrhage—some blood-corpuscles in a flood of liquor sanguinis. Still, it was so great, that I thought it necessary to plug the aperture and channel with a pledget of lint wetted with turpentine, and to apply a cold wet compress. The boy looked fearfully ill, hot skin, with quick, weak, jerky pulse, quick breathing, very foul tongue, offensive breath, and that indescribable pallor which indicates more than loss of blood—a peculiar form of fever. After an interval of a day or two, however, the discharge had lessened and become more serous; after a further interval, the feverish symptoms and the swelling began to abate; the patient was able to take some food. When the swelling began fairly to go down, its disappearance was rapid; all discharge gradually ceased; and in the end the boy made a very good recovery, with a shapely and useful limb, and perfect joint. There is some deficiency in attempting complete flexion, but not in any other movement. I have examined this boy during the last few days. The shortened shaft of the bone made complete bony union with the end or epiphysis. There is a hollow, deep, indrawn cicatrix where the shaft of the bone projected, from the adherence of the soft parts to the bone, and the limb is less muscular and powerful than the other, but as useful in all other respects.

I would sum up my paper by saying that I have a salutary dread of injuries at the elbow, and perhaps a greater one of those at the hip, especially in old persons.

CASE OF DOUBLE VENTRAL HERNIA:

ONE STRANGULATED ON ADMISSION; THE SECOND BECOMING SO FIVE DAYS AFTER OPERATION ON FIRST. SECOND OPERATION: RECOVERY.*

By EDWARD WOAKES, M.D., Luton.

GEORGE G., aged 61, was admitted into the Luton Cottage Hospital April 11th, 1873, having a hernia on each side of the linea alba, about two inches above the umbilicus. They were distant from each other about one inch and a half. That on the right side was strangulated, and had been so twenty-four hours; he had experienced difficulty in reducing it for nearly a fortnight.

He stated that he had been the subject of dropsy during the past winter, causing great distension of the belly, and that, on the subsidence of this, two months prior to admission, the ruptures became apparent.

When admitted, he had stercoraceous vomiting, a quick irritable pulse, intense pain in the back, and the tumour of the right side, which was about the size of a pullet's egg, was very tense and painful; that on the left side was easily reducible.

April 11th. At 1 P.M. he was put under chloroform, and, the right tumour being still irreducible, an incision two inches in length was made through the integument, half of it extending upwards towards the ribs in order to expose as little as possible of the sac. The ring, which was thus readily reached, was very tense, and when divided nearly a quart of ascitic fluid escaped, the remains apparently of his dropsy. The bowel, as seen through the sac, was exceedingly dusky; it was easily reduced. The wound was closed with sutures. After the operation he vomited once. He was directed to be fed very sparingly on iced milk, and ten minims of liquor morphiæ were given every four hours. A turpentine stupe was applied to the abdomen.

He progressed without a bad symptom, the pulse gradually falling to 60 up to April 15th; when the bowels not having been relieved, though he complained of weight and fullness in the rectum, with the desire to evacuate without the power to do so, I ordered him an aperient of calomel and rhubarb. In the night this operated, and, contrary to instructions, he got up to the nightstool. In this effort, the hernia of the left side became strangulated.

April 16th. This morning, the left hernia was found tense and irreducible. Ice was applied, but without effect, and during the day

severe symptoms of peritonitis supervened. The pulse rose to 120. There was great pain, referred to the back, but no sickness. In the evening, there being no abatement in his condition and collapse threatening, it was deemed desirable to operate. At 8 P.M. chloroform was administered, and a similar operation to the previous one performed. On this occasion, however, great difficulty was experienced in reaching the ring, owing to the overlapping of the gut on the side of the incision. Very little was seen of the sac during the operation. Reduction was effected after somewhat free division of the ring. He was given a grain of calomel and a quarter of a grain of opium every three hours. Besides iced milk, some brandy was added.

April 17th. He passed a good night. Pulse, 104. There were much tympanic distension and tenderness in the region of the transverse colon. He was ordered to continue the calomel and opium.

April 18th. He passed a restless night. Pulse, 112. He had had three loose motions. The tympanites was diminished; the tongue less foul. He was a good deal exhausted. The brandy was increased to three ounces. Later in the day he had frequent stools containing bloody fluid. He was ordered to take the morphia draught as on the former occasion. Instead of calomel and opium.

April 19th. Pulse, 104. He passed a quiet night. There was less purging, and he was altogether better. He was ordered to take beef-tea, milk, and arrowroot.

From this date he continued to improve, convalescence being apparently aided by a grain of quinine, with an eighth of a grain of morphia three times a day.

REMARKS.—Mr. Bryant, in his recent treatise on Surgery, lays down the rule that umbilical hernia always increases downwards, thus affording a guide to the situation of the incision when operating. Now, though this was the case in the right tumour of my patient, in the left the reverse condition presented itself, and added much to the difficulty of reaching the ring. It is worthy of note, therefore, that, though Bryant's law may be absolute in umbilical hernia, it does not always obtain in herniæ, which, though very near the umbilicus, do not take place actually at this spot.

In view of the extremely unfavourable effects of opening the sac in such herniæ, or of any undue interference with its contents, I was careful to see as little of the intestine as possible, and was fortunate in being able to reach the seat of constriction in both operations through an incision only long enough to allow the introduction of the finger.

In conclusion, I would testify to the good effect of opiates continuously administered, in checking the sequences of so serious a lesion of the intestine as happened in the above instance. I attribute the patient's recovery to the fact of his being kept in a state of narcotism for two or three days after the second operation. Under the influence of this drug, nature's bowel-splint, as it has been called, the intense congestion of the gut subsided, the surrounding peritonitis gradually disappeared, and the intestinal tube resumed its normal condition.

ON THE INOCULABILITY OF EPITHELIOMA.

By J. WICKHAM LEGG, M.D.,

Casualty Physician to St. Bartholomew's Hospital.

I WISH to place on record the results of a few experiments with the inoculation of epitheliomatous tumours, made about two years ago.

My observations were all made upon guinea-pigs and white rats. They differ from those which have hitherto been made, in the length of time which passed between the cutting out of the tumour and the inoculation. In the successful inoculation of malignant growths which have been recorded of late years by Follin (*Traité de Path. ext.*, 1, 303) and Goujon (*Journal de l'Anat. et de la Phys.*, 1867, p. 319), some hours must have gone by between the operation and the inoculation. It would thus seem probable that all life had left the tumour. It would then act as any dead mass would act, without any of the specific action supposed by some to belong to malignant tumours. In my own observations, I proceeded as follows. The animals were rendered insensible by the injection of three or four grains of chloral under the skin. The hair was then cut off some part of the skin, usually about the flank; and a cut about ten or twelve millimeters long was made through the skin into the subcutaneous connective tissue. By means of a probe, a space was made under the skin for a short distance, into which the inoculating matter was to be inserted. A suture of silk was then passed through both edges of the wound; but the thread was left quite free, not knotted. The animal was then ready for the inoculation. As soon as the tumour was loose, a thin slice, taken from where the tumour was most rapidly growing, was pushed under the skin, or in two cases into the peritoneal cavity; and the edges of the wound were at

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