RUPTURE OF THE JEJUNUM FROM DIRECT VIOLENCE WITHOUT EXTERNAL BRUISING.

By J. LOCKHART LIVINGSTON, M.D.R.U.I.,
Hursley, Winchester.

ON December 2nd, 1901, I was summoned to a remote farmhouse to see a lad, aged 16, who was said to have been "run over." On reaching the house about three hours after the accident, I found the boy lying on a sofa, partially undressed, pale, somewhat cold, (although he had an "eiderdown" over him), with a pulse of 116, and respirations 24. He was perfectly conscious, and did not complain of pain. He told me that while driving a horse and empty cart he had fallen out while endeavouring to release the reins from some part of the harness, and the horse had stepped on his belly with his near hind foot, and that he had lain between the wheels, which did not go over him. A carter who was about 100 yards away when the accident occurred saw the horse running away, and soon after the boy got up from the ground and came towards him, but fell down after walking a few yards; he then got up again, and walked 50 or 60 yards, screaming. Before reaching the carter he vomited about a tablespoonful of blood (?), and soon afterwards when lifted into a cart he vomited freely "what looked like the whole of his dinner" (which he had had three hours before), "but of a purple colour"; this was believed to be due to jam (sloe or damson) pudding which he had had at dinner, and it was also thought to account for the supposed blood which was vomited. It was impossible to verify the statement of blood vomited, owing to cattle having been driven over the spot.

On examining the boy's abdomen there was no sign of external injury, although the carter said he had seen a red mark near the navel immediately after the accident (there was dirt on the lower part of the boy's waistcoat where he said the horse stepped on him, but as other parts of his clothes were dirty from lying on the ground this evidence was not considered conclusive); the abdominal walls moved in respiration, although not quite freely; there was no tenderness in any particular spot to light pressure; dullness on percussion in the hypogastrium, and also in the flanks, in the latter situation changing with the position of the body. Soon afterwards quite half a pint of clear urine was passed without difficulty, and this probably accounted for part of the dullness in the hypogastrium. He had passed urine shortly before the accident, so that there was no anxiety on this score.

I had now to form some judgment on the evidence before me. On the one hand there was the fact that the boy's general condition was good, and that he did not appear to be suffering from such severe shock as one would expect to find if there were serious internal injury, but on the other hand there was (1) the history of a cart-horse stepping on his abdomen, confirmed by (2) rapidity of pulse, 116, and other symptoms of shock three hours after the injury, (3) presence of fluid in the peritoneum, (4) unusual freedom from pain (from my previous experience of the patient I regarded this as a grave symptom), (5) doubtful vomiting of blood, (6) vomiting of a full meal three hours after being taken of.

Recognizing the impossibility of giving a positive opinion from symptoms alone—on the question of internal injury, I asked for and obtained permission for a consultation to decide whether an exploratory incision would be justifiable, and a messenger was sent for Mr. Wace, of Winchester, and for a surgical nurse at the same time. In the meantime we got the patient to bed, and applied hot bottles, which had the effect of improving the circulation in the extremities. On Mr. Wace's arrival, about five hours and a-half after the accident, the boy was smiling, free from pain, moving easily and freely in bed—so much so, that he had to be told to keep still. The surface of the body was warm, and he could bear considerable pressure with the flat hand on all regions of the abdomen; the signs of fluid in the peritoneum were less marked, the liver dullness was about $2\frac{1}{2}$ inches vertically in the middle line, ceasing about 1 inch above the costal margin, and his pulse 112. In view of his slight symptoms and general

good condition and in the absence of positive evidence of internal lesion, Mr. Wace was averse to operation. We therefore decided to give a guarded opinion, and to await events. Nothing was allowed by the mouth but teaspoonfuls of water at intervals of half an hour or an hour.

At 11 o'clock next morning he had slept at intervals—altogether about three hours—complained of pain, not localized, once or twice during the night, had passed urine, thick and depositing urates, three or four times, flatus by the mouth. At 7 A.M. vomited about 1 ounce of bile. His temperature at midnight (2nd) had been 100° , pulse 110, respirations 36. At 6 A.M. (3rd) temperature 100.6° , respirations 32, pulse 116; now it was under 100° , pulse 126, respirations 26, and he was free from pain; the abdominal walls still moved; there was no particular tenderness, but there was dullness on percussion continuous with the liver dullness in the nipple line almost to the umbilicus. As the patient was not at all collapsed, it was thought this could not be blood.

At 1 o'clock on the morning of December 4th I got a message to go "as soon as possible," and reached the house at 2 A.M. The nurse informed me that there had been a slight action of the bowels, without straining, at 11 P.M., and that he then became collapsed, and she thought he was dying, but that he had improved since then. I was unable to count his pulse at the wrist, which was small and running; the heart beats were from 140 to 150 in the minute. Shortly afterwards I could hardly feel his pulse at the wrist, so I injected 3j brandy hypodermically. Almost without warning, and before I could reach a basin, he vomited from half to one pint "coffee-ground" fluid—evidently altered blood—and the pulse at the wrist soon returned. As it now seemed certain that there was some serious internal injury—probably rupture of the gut—I again sent for Mr. Wace, who arrived, accompanied by another surgeon, at 6 A.M. On examining the abdomen it was now noted that the liver dullness extended downwards to within an inch of the costal margin (as on the first occasion), and there was a separate line of dullness (with intervening resonance) about two fingerbreadths wide, extending from about the umbilicus for 2 or 3 inches transversely to the right. As there seemed very little chance of saving the boy's life by an operation in the condition he was then in, it was decided to give $\frac{1}{4}$ gr. morphine hypodermically, and to see him again in six hours. He had not slept at all during the night.

At our next visit (2 P.M. on the 4th) we had the advantage of the opinion of Dr. Wingfield, of Winchester, in conjunction with Mr. Wace, Mr. T. W. Letchworth and myself. The parents thought the boy much better as he had slept and was more comfortable, but there was no improvement in the pulse, which was 140° or more, the abdominal walls still moved, although the recti were rigid on palpation. There was now a decided diminution in the liver dullness which was reduced to about 1 in. vertically in the nipple line; the same area of dullness was present to the right and just above the umbilicus and in the flanks. There had been a small action of the bowels not blood-stained. The position was explained to the parents, who requested that an operation should be performed if there was the smallest chance of its success, and preparations were at once begun, including provision for intravenous injection of saline solution if it should be required. Chloroform was administered by Dr. Wingfield, but by the time 3j had been used, and the patient removed from the bed to the table, the pulse could not be felt, and breathing had almost ceased; it was therefore found necessary to abandon any attempt at laparotomy, and some two or three pints of saline solution were injected into a vein at the bend of the elbow, which had the effect of improving the colour, circulation, and general condition of the patient. The patient gradually sank and died at noon on December 5th, 1901, 68 hours after the accident. There was an absence of marked distension of the abdomen throughout. A partial necropsy was performed on the 8th—75 hours after death. Rigor mortis was not quite gone; greenish discoloration about the abdomen and flanks. On opening the peritoneum gas escaped, and 1 to 2 pints of bloody fluid were found. Flakes of lymph were sparingly distributed on the small and large intestines; on the posterior (lower) layer of the transverse mesocolon pus had formed. The only injury, with the exception of slight superficial bruising of the lower end of the

left kidney, was a rent in the jejunum, near its commencement close to the spine, about $1\frac{1}{2}$ inch long in the longitudinal axis of the bowel, at its free border; the edges of this rent were thickened as if bruised; no other source of haemorrhage was discovered.

TWO CASES OF INOPERABLE SCIRRHUS OF THE BREAST TREATED BY OÖPHORECTOMY: RESULTS.

By E. PERCY PATON, M.S.LOND., F.R.C.S.,
Assistant-Surgeon, Westminster Hospital.

THE question of the treatment of inoperable scirrhus of the breast by removal of both ovaries has of late caused considerable discussion, but as its ultimate value as a means of relief or cure can only be settled by extensive experience of cases in which the treatment has been tried, I have thought it worth while to add the only two cases, which I have so far done that they may be included in the larger experience of others. Both of them are unfortunately "complete" cases, as both of them have since died.

CASE I.

E. L., married, aged 43, first came under my care on January 15th, 1900.

History.—She was married and had had nine children, and was at the time five months pregnant; she had first noticed a swelling in the left breast the previous November, and it had increased very rapidly.

Condition on Examination.—There was extensive infiltration of the whole breast with new growth and some, though not very extensive, affection of the axillary glands.

Operation on Breast and Result.—On January 18th the breast and axillary contents and sternal portion of the pectoralis major were removed, the wound healed without trouble and she went out of hospital on February 7th in good health. She returned on September 13th, having in the meantime had a child which she had suckled. She said that two months before the lump had returned in the scar, and that on September 7th it had bled a little; the bleeding was stopped by pressure, and she was kept under observation. On October 9th she was readmitted, and a careful sketch having been made of the extent of the growth, it was found that an area of about 9 in. by 5 in. of the left chest wall was ulcerated, and there was also considerable infiltration around this ulcer; the opposite breast was also involved, but there was very little glandular affection palpable, and no evidence that any internal organs had been attacked.

Oöphorectomy was done on October 11th, and a day or two later she was put on 5 gr. of thyroid extract three times a day, which, however, was only continued for about three weeks.

After-History.—The patient's mental condition soon became a source of trouble; she was very restless and unable to sleep, trying to get out of bed, and apparently going rapidly downhill. On November 14th it was noted that the growth on the left side seemed a little smaller and showed less tendency to bleed than formerly, but that the swelling in the right breast was increasing. As she was still very restless and sleepless, sulphonal (20 gr.) every night was ordered. This had a very beneficial effect on her general condition, as she at once began to sleep better and became more herself; but there was no further improvement in the condition of the growth, while that in the right breast continued to increase, and she now suffered a good deal of pain; she was, however, able to get up, and her general condition remained about the same till January 5th, 1901, when she was discharged. She died in the infirmary on March 4th.

CASE II.

Mrs. L. B., aged 31, came under my care on March 21st, 1901.

History.—She had first noticed a lump in her left breast eighteen months before, she being then four months pregnant. Five months later after the birth of the child it began to grow more rapidly, and when I saw her it had extensively infiltrated the whole left breast and axillary glands, and the glands in the posterior triangle were considerably involved.

There was no evidence of any affection of any of the internal organs.

Operation on Breast.—The state of matters was explained to her, and I was desirous of leaving the tumour alone in the first instance and removing the ovaries, but she was anxious that at any rate an attempt should be made to remove some of the growth. An extensive operation was therefore done on May 30th, 1901, the breast and pectoral being taken away, as well as the contents of the axilla, but the cervical glands were not touched.

Oöphorectomy.—The wound healed kindly, and on July 1st the ovaries were removed, and she was discharged from the hospital in good general health on July 24th; indeed she expressed herself as feeling much better than when she came under treatment, though there was no obvious improvement to be noticed in the masses in the neck. From the time of her discharge she was kept carefully under observation, but the growth speedily recurred in the scar, and extended widely, and although she suffered very little pain she went very rapidly downhill, and died at the end of December, 1901.

It may be noted here that the nature of the growth in both these cases was characteristic scirrhus.

REMARKS.

Very little I think need be added to the notes given above. Both of them were exceedingly bad cases to have to deal with, as in both the growth was associated with either pregnancy or lactation, but on the other hand in both cases the removal of the ovaries was done at a time of life when theoretically their removal may perhaps be expected to have most effect. Two cases can, however, only be of value in estimating the utility of the treatment under consideration when added to a larger number of cases under the care of other surgeons.

TREATMENT OF A CASE OF SCIRRHUS RECURRENT FIVE YEARS IN A PATIENT AGED 93: IMPROVEMENT.

By E. A. PETERS, M.D., B.C.CANTAB.,
In charge of Throat Department, Bolingbroke Hospital.

HIGHLY satisfactory results of the treatment of various forms of cancer by exposure to Roentgen rays have been reported by Mr. Bryant and Mr. Lyster,¹ Mr. Clarke,² and others. Thanks to the courtesy of Mr. Lyster, I had the opportunity of seeing some of these cases so treated, and the methods employed at the Bolingbroke Hospital. The resulting improvement so impressed me that I felt justified in employing the treatment on a recurrent slow-growing spheroidal-celled carcinoma which had been under my observation for three years.

The original growth was said to have been removed with the left breast by Lord Lister³ thirteen years ago. The recurrence had been noticed by the patient eight years later. When the patient first came under my care there was a projecting mass about $1\frac{1}{2}$ in. in diameter adherent to a rib at the seat of the incision. This condition was considered unsuitable for operation.

From that time on the growth slowly progressed. At times considerable inflammation set in, with swelling, bleeding, and pain; sloughing ensued, and a period of quiescence followed. The pain was relieved by application of suprarenal extract.

On December 5th, 1901—the date of the commencement of the Roentgen treatment—the growth measured 3 by $2\frac{1}{4}$ in.; it had a well-raised margin covered by thin red epidermis, while the centre was occupied by an irregular ulcer. There was also some ulceration of the raised margin. Large tender glands could be felt at the edge of the lesser pectoral muscle. Some of the surrounding veins were distended. The patient complained of pain of the extensor surface of the forearm and middle digit.

A 10-inch coil was employed to give a parallel discharge 4 to 7 inches in length with Watson's vril break worked at maximum speed.