

NOTES ON A CASE OF FRACTURE OF THE SPINE.

By J. PEPLOE CARTWRIGHT, M.R.C.S. &c.

THE patient, a strong, well-nourished, grey-haired man, married, aged fifty-seven, a farm labourer, fell from a haystack five yards high on July 30th, 1878. Circumstantial evidence from his companion on the stack suggested the probability of his falling on a brick, his left side being nearest the ground, the brick causing extension of the vertebral column. He had always been a strong man, working hard, and, as the usual concomitant, was a free drinker; remembered no previous illness except very slight attacks of bronchitis the last few winters; is father of sixteen children.

On examination, four hours after the accident, he was found lying on his back on the bed, perfectly sensible, slightly bruised about the head; motor power in both lower limbs completely suspended; could move arms and breathe easily. There was loss of sensation over the gluteal and sciatic regions and over the backs of the legs, but sensation was beautifully delineated and marked the cutaneous supply of all the branches of the anterior crural down to the inner ankle and the cutaneous supply of the small sciatic to the inner side of the posterior aspect of the thigh and of the inferior pudendal nerve. On examining the spine, no displacement of the spinous processes was found, but there was tenderness over the twelfth dorsal and first lumbar spines; no swelling. A catheter was passed and the urine drawn off, which process he could not feel.

From the position of the injury and the symptoms I presumed there must be a fracture of the spinal column about the eleventh or twelfth dorsal vertebra, with pressure on the cord either by displaced bone or effusion of blood. There being no deviation in the continuous regularity of the spinous processes, and taking into consideration the patient's age, I decided that it was not advisable to attempt to trephine.

The patient was placed on a water-bed, and the catheter used twice daily. On August 2nd the bowels were moved after a dose of castor oil; much constipated, quite involuntary action, no power over sphincter. On the 4th, beef-tea, brandy and eggs were administered. Temperature 98.4°; pulse 80; respiration 24. Bowels open, but very constipated. Patient had a slight cough, with slight mucous expectoration; dullness on percussion over posterior surfaces of both lungs. On the 10th, the bowels not being open, a dose of oil was administered, which produced a large constipated stool, this being only the third motion since his accident on July 30th. Tongue furred; urine acid, sp. gr. 1020, no albumen. Catheter passed as usual.

From this time to his death, on October 27th, he micturated into a urinal, and his bowels were open regularly every morning about the same hour, there being no indication of this to the knowledge of the patient.

On August 30th, a month after the accident, bedsores formed over the seat of fracture and over the sacrum. Though his appetite was fairly good, and he partook well of eggs, brandy, milk, beef-tea, &c., he gradually grew weaker, and the bed sore over the sacrum a fortnight before his death extended over the whole of that bone (where necrosed bone could be felt) and over the lumbar vertebrae, and this in spite of every care to prevent their spread, they being carefully and frequently dressed with unguentum resinae and charcoal poultices.

Oct. 27th.—After gradually sinking, the patient died this morning, the bowels having been open yesterday, and the urine voided, as it has been since August 10th.

Necropsy.—The eleventh dorsal vertebra was found to be fractured through the base of the spinous process, the fracture extending through the left lamina to the articular portion and into the body, the posterior part of the lamina being crushed and pressing in upon the lower portion of the spinal cord and nerves surrounding it. There was entire absence of union at the seat of fracture. The bladder was healthy.

Remarks.—The points of interest in this case seem to me to be: Firstly, whether the fracture was caused by the extension of the spinal column from his falling on the brick, or whether, from the crushed state of the lamina, it was not rather caused by direct violence through the lamina coming

in contact with the edge of the brick. Secondly, whether, considering the only partial loss of sensation, and that the strength of the patient was comparatively good, it would have been advisable to trephine. Thirdly, the extraordinary passage of urine and faeces, and the healthy state of the bladder and urine, even to the end. Can the regular everyday movement of the bowels after the first ten days of the illness be attributed to a rhythmical action of nature to perform the functions of habit tutored by the training of fifty-seven years of regularity, although all voluntary motion, control over, and knowledge of, the action of the sphincters had been suspended? And how can it be accounted for that the urine kept acid, constantly passed at specified times, and set up no irritation to cause cystitis, urethritis, or pyelitis?

Lymm, Cheshire.

CASE OF RUPTURE OF THE FALLOPIAN TUBES.

By HENRY FISHER, M.D.

MRS. S—, aged forty, was first seen by me after her being twelve hours in labour. I found her very feeble, with a pale anxious expression of countenance, and sickness of stomach. On examination the os was dilated about an inch and a half, but very rigid and unyielding to the effort of dilatation with the finger. I waited about two hours, during which time the labour became weaker, and vomiting more troublesome, but the os had decidedly given way a little, and the head advanced into the pelvis. As the woman complained of great sinking, as if she were dying, I proposed to relieve her with the forceps, but which she strenuously objected to. However, after about another hour, she revived a little, and, with a brisk pain, gave birth to both foetus and placenta, the child being dead. I left her soon after with a good contraction of the uterus.

Six hours afterwards I was hurriedly sent for to see the patient, who was suffering, and had been through the interval, with incessant vomiting and faintings. This was slightly relieved with ice and small quantities of brandy, so long as no attempt was made to give any kind of food, which would be immediately rejected. At the end of forty-eight hours no urine had passed, nor was there the least inclination for so doing. I administered an enema of warm water, which brought a quantity away from the bowels, but no action of the bladder ensued. Soon after, I passed a male catheter, but found the bladder empty, the catheter passing so freely to nearly its full length that I suspected a rupture of the viscus. Having tried every remedy to allay the sick stomach without avail, she gradually sank, and died on the sixth day. My curiosity to know the real cause was so aroused that I made a request of the husband to grant me a post-mortem examination, which he very reluctantly acceded to on condition that he should superintend it.

Post-mortem examination.—My first move was to the uterus, which I found impacted in the pelvis, about the size of a very large cocoa-nut, having a black and bruised appearance on the right side about the size of the palm of the hand. The Fallopian tube was ruptured about two inches from the uterus, together with the broad ligament as far as the ovary. The tube itself was about the thickness of the little finger, presenting the appearance of a firm blood-clot. Turning to the left side, I found the Fallopian tube in the same condition, but not the uterus. Cutting into its substance on the right side, I found the organ perfectly healthy, also its cavity. On lifting it out of the pelvis I discovered about four ounces of blood. The bladder was quite empty, and the mucous lining showed considerable inflammation of a chronic character. The stomach was healthy, with the exception of congestion of the vessels on its inferior margin. Having satisfied myself that all the other abdominal viscera were healthy, I came to the conclusion that I had found the cause of death, and, very much to the relief of the husband, concluded my search.

I congratulated myself in this case on not having applied the forceps, as most assuredly the cause of death would have been attributed to it. This was a temperate and healthy woman, with five children, up to the time her labour com-

menced; but whatever occurred during the time of labour before I saw her to make her tell the nurse she never should recover, the result at all events verified her prediction. The case is a novel one, and may prove interesting to others as it has to myself and Mr. Sannemann, who came to my assistance in consultation.

Chelsea.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF POPLITEAL ANEURISM; CONSOLIDATION UNDER ESMARCH'S BANDAGE; RETURN OF PULSATION; LIGATURE OF FEMORAL; APPARENT CONVALESCENCE; SECONDARY HÆMORRHAGE; SECONDARY LIGATURE OF FEMORAL; DEATH; REMARKS.

(Under the care of Mr. THOMAS SMITH.)

THE following case, as regards results, stands in melancholy contrast with that reported in the "Mirror" last week from the York County Hospital. In the latter case cure rewarded the labours of the surgeon and his assistants, whereas in the former Nature seemed to delight in baffling and defying all ingenuity and skill. It is difficult to account for the untoward result. Secondary hæmorrhage thirty-one days after ligature, and eight days after cicatrisation of the external wound, is an uncommon event. The explanation offered by Mr. Smith in the appended remarks is perhaps the true one.

For the following notes we are indebted to Mr. S. S. Burne, house-surgeon.

J. D—, aged forty-eight, was admitted on Dec. 12th last with the following history. He had been for many years in the army, and had served abroad. He had syphilis in early life. He was quite well up to eight months before, when he first noticed a painful swelling in his popliteal space. Five months later it became so painful that it prevented his walking, and he was admitted into the Richmond Infirmary with a popliteal aneurism. He was treated by Esmarch's elastic bandage, both with and without chloroform, with the result of twice stopping the pulsation, which, however, soon returned. Flexion was also tried, but could not be borne.

After he had been in the hospital a day or two it was decided to try pressure by the elastic bandage again, and on Dec. 15th this was done. Pressure was begun at 11.15 A.M. in the following way: An elastic bandage was applied all up the leg as far as the tumour, and a shorter one was put tightly round the thigh above the aneurism. The swelling was then covered by a flannel bandage applied round the knee. The elastic bandage was removed, on account of the pain, in an hour, and digital pressure was then applied for fifteen minutes, after which a tourniquet was put on and kept on for two hours and a quarter. The bandage was then reapplied and kept on for an hour and a half, when the tourniquet was put on, and, on removing the bandage, the tumour felt solid. A little later, when the tourniquet was taken off, there was no pulsation in the aneurism. In about a quarter of an hour pulsation returned, and the bandage and tourniquet were again applied alternately for an hour and a half, and again the aneurism felt solid. As the patient could not bear the pain any longer, the limb was put up in a flannel bandage, and the tourniquet was put on very lightly.

Next morning the tumour was found to pulsate. The tourniquet was therefore tightened, and kept on about three hours. At the end of that time pulsation had again ceased, but returned in the course of a few hours. As the skin was getting red and tender over the artery the treatment was not continued, and it was decided to ligature the artery.

The patient was left quiet for a fortnight; and on Jan. 1st, 1879, Mr. Smith tied the femoral artery in Scarpa's triangle.

The operation was done under the carbolic spray. The artery was tied with carbolised silk and the ends cut short; a drainage-tube was put in the lower end of the wound, and a gauze dressing applied. Evening temperature 99.5°. Except on this single occasion the temperature did not exceed 98.6°.

The wound—which was dressed on the 3rd, 5th, 7th, 10th, 12th, and 17th—rapidly healed, and the patient was allowed to sit up on the last-named date.

On the 21st the antiseptic dressings were removed, and boracic ointment applied. The patient walked on crutches. Two days later the wound was quite healed.

On the 28th a swelling was noticed under the lower part of the cicatrix; and on the 30th, at 9 A.M., the patient noticed blood running down his thigh. The lower part of the cicatrix was found to have been opened and blood was oozing from it. There was a good deal of swelling in the surrounding parts. The bleeding was controlled by a light pad and bandage.

On Feb. 1st, at 3 P.M., bleeding recurred rather more profusely. A consultation was held, and it was determined to examine the wound. The patient was accordingly put under chloroform and the wound reopened. The ligature was easily found. The artery was then tied above and below with carbolised silk, and the artery divided between the two, the old ligature being removed. The ends of the ligatures were left in the wound, which was brought together with two wire sutures, and a strip of tissue was put in as a drainage. At 10 P.M. he was rather nervous about himself. Pulse 100; temperature 104.2°.

Next day he was better; the wound was dressed. Pulse 96; temperature 100.6°. At 11 P.M. the temperature was normal.

He felt well, and his temperature and pulse were normal, for the next three days.

On Feb. 6th he felt as though he had caught a chill. Wound syringed and dressed. Pulse 96; temperature 104.2°.

7th.—Slept well. Tongue furred. Drowsy. Wound dressed. Pulse 108; temperature 104.2°.—10 P.M.: Pulse 105; temperature 102°.

8th.—Slept well. Wound looked well; was healed with the exception of where the ligature-ends were. Complained of pain on respiration. Pulse 108; temperature 102°.—10 P.M.: Pulse 108; temperature 101.5°.

9th.—Had diarrhoea last night, which was stopped by aromatic draught. Pulse 105; temperature 101.3°.

10th.—Slept well. Tongue furred. Both hands are swollen. Pulse 114; temperature 104.6°.

11th.—Slept well. Tongue dry and brown. Petechiæ on fingers and hands. Pulse 116; respiration 44; temperature 103°.

On the 12th he became insensible, and died about noon.

A post-mortem examination could not be obtained. The wound was examined, and the following description is that kindly furnished by Mr. Eve, the curator of the museum:—The wound had healed on the surface; the ligatures protruded through two small fistulous tracks. On cutting through the scar, a small abscess containing ichorous pus was found lying over the vessels; into this cavity the ligatures passed. The cut ends of the vessel had united above the upper ligature. The vessel contained a clot about an inch and a quarter long. The lower part of this clot was pale and loosely adherent to the wall of the vessel. Below the lower ligature there was a small clot about a quarter of an inch long, and very slightly adherent. The lining of the femoral vein was stained; its canal was patent; a clot partially filled its upper third. This clot was rather firmly adherent to the wall of the vessel; it was decolourised, and commenced immediately behind the cusp of a valve. At this point a large vein, filled by a clot, opened into the femoral. The conical end of this clot projected into the femoral vein. No injury was apparently done to the vein in the passage of the ligatures, nor did any small branch appear to have been injured.

Remarks.—The chief peculiarity of this case was the unstable nature of the clot obtained by compression. On several occasions the tumour became solid, but the clot subsequently dissolved, and this happened so often that compression had to be given up, and the femoral ligatured. The occurrence of secondary hæmorrhage may very possibly have been due to the same cause, the clots in the vessel not being strong enough to withstand the force of the circulation. What was the peculiar condition which led to these effects in this patient