**CASE OF ANEURISM OF THE EXTERNAL ILIAC ARTERY :
LIGATURE OF THE COMMON ILIAC: DEATH
ON THE FIFTEENTH DAY.**

By ELLIS JONES, Esq., Surgeon to the Northern Hospital, Liverpool.

CASE. Morris Power, aged 34, rather slender, and not of a very healthy appearance, was admitted into the Northern Hospital, under my care, on December 12th, 1851. He was labouring under aneurism of the external iliac artery on the right side. He was a coal-heaver by employment, and was in the habit of exerting himself very much at times in loading carts with coal. On one occasion, about four months before admission, he felt something give way in his groin, and suffered a little pain in the part for some days afterwards; he however continued to work some time after this. About a month before entering the hospital, he applied to a druggist, who thought he had a bubo, and gave him a liniment to rub it. About four days ago, he had applied to one of the parish surgeons, who immediately suspected the nature of his complaint, and directed him to the hospital. He said that he had only perceived the tumour about a month before, and that his attention had been attracted to it by the swelling, which at the time pulsed strongly. It was, however, unattended by pain then as well as at the time of admission, but had ever since increased daily in size. It was about the size of a cricket-ball, of a round shape, seated above Poupart's ligament, which it pushed down towards the thigh by its pressure. A very strong impulse was communicated to the hand when placed over it; and, on applying the stethoscope, a loud bruit was heard. There was no swelling or œdema of the leg or foot. The circulation was perfectly regular and tranquil, and the action of the heart natural.

December 15th. In consultation with my colleagues, it was decided that tying the common iliac artery would be the most advisable plan to pursue; but the man, when it was proposed to him, would not submit to the operation. It was consequently agreed to try the effect of continued pressure by means of the horse-shoe tourniquet below or on the distal side of the tumour. This was continued until the 19th; on removing the tourniquet on that day, some little ulceration of the integuments had taken place from the pressure of the pad. As it was evident that it was doing no good, it was not continued. External pressure with the hand on the aorta stopped the pulsation in the tumour.

28th. The tumour had increased in size during the last week. It measured 7 inches by 5½. The patient had been suffering great pain about the knee-joint, evidently from pressure on the anterior crural nerve. The skin over the tumour appeared inflamed, and felt hard about the groin. The pulse was about 84. The patient's appetite had not been good for the last day or two. He to-day gave his consent to the operation. He was ordered to take a dose of castor-oil, and, if necessary, an enema in the evening. The tumour now occupied the whole of the right iliac fossa, pushing Poupart's ligament down-

wards, and superiorly extending to within an inch and a half of the navel, being seven inches in its vertical diameter, and five and a half inches from side to side; it also projected fully three inches from the surface of the abdomen.

29th. It was decided that the only chance the patient had, was to submit to an operation. He was now perfectly ready to undergo it, and was composed and tranquil in his mind. The patient was placed on the operating table, with his shoulders a little raised; the incision was commenced at a point two and three-quarter inches above the navel, and a little more than three inches on the right of the median line, and was carried down two inches and a quarter below the navel, that being as far as the tumour would admit; the length being five inches. The different parts underneath were now carefully divided, until the peritoneum was exposed; this was extremely thin at the upper part of the wound. The peritoneum and its contents were now gently drawn towards the opposite side by one of my colleagues, and I was enabled to gradually insinuate my index finger behind the peritoneum, and slowly separate it from the parts beneath. After some time, the artery was felt pulsating under my finger. There was considerable difficulty in seeing the vessel, in consequence of the large size of the tumour; at length, however, more by the sense of feeling than sight, the aneurismal needle of Trant of Dublin, armed with a strong ligature, was passed under the artery from within outwards. The ligature was tied with the fingers close down upon the artery, when all pulsation in the sac ceased, and never returned. The wound was closed with three sutures; strips of adhesive plaster, a pad of lint, and a bandage were applied, and the whole limb was enveloped in cotton wool. The patient was under the influence of chloroform during the whole time; he neither moved nor was conscious of the least pain, and expressed himself as if he had been in a dream. He did not appear much exhausted. Only one bleeding vessel was taken up, and there was very little loss of blood. At eight o'clock he felt comfortable; he had no pain of any consequence. His pulse was 90. There was no pulsation in the tumour, which appeared much flatter. The temperature of the foot was natural. He was directed to take forty drops of Battley's liquor opii sedativus; and he was now placed on Hooper's water-bed.

30th. He had slept well during the night; the pulse was 108. The inflamed appearance of the integuments over the tumour had disappeared; the tongue was a little brown, but soft; he had no thirst. A little beef-tea and farinaceous diet were ordered to be given.

31st. Pulse 112. An opiate was given him last night. He did not sleep well. He had been vomiting some green-coloured fluid twice or three times in the morning, and was troubled with hiccup. The bandage was removed; on doing which, some dark coloured fluid ran out from the lower part of the wound. There was erysipelatous inflammation over the tumour, which seemed to extend.

January 1st, 1852. The pulse was 100. He had during the night some sleep at intervals; had no sickness since yesterday at noon. The hiccup continued, especially after taking any food into the stomach. He had taken six grains of opium since the operation, and eight ounces of wine. The erysipelatous inflammation appeared much the same. The sac felt soft to the touch. There was some discharge of a dark

colour and thin consistence from the bottom of the wound. His bowels had not been open since the operation.

2nd. Pulse 104. He had slept a little at intervals during the night. He had taken one grain of opium every four hours. In the night, considerable distension of the abdomen came on, which was relieved by the introduction of a long tube up the rectum, through which escaped some flatus; a turpentine enema was also administered, which brought away some motions. The sutures were taken off to day, and some dark coloured sanious discharge came away. The hiccup was still distressing to the patient. A draught of magnesia, with two drops of dilute hydrocyanic acid, was given three times a day. The erysipelatous inflammation seemed to have extended, especially downwards towards the thigh.

5th. The pulse was 110. There was to-day evident fluctuation over the tumour in the groin; an exploring needle was introduced into it, and pus was discovered. A small opening was made, and some pus came away, with a quantity of dark sanious discharge. He was ordered to continue his opium and wine.

6th. The pulse was 100. The hiccup continued. Over the right nates the integuments were much inflamed and distended, evidently having some fluid underneath. An exploring needle was introduced, and afterwards an incision was made, followed by about an ounce of matter.

9th. Pulse 120. There had been a very considerable discharge of thin sanious matter from the groin and nates. Over the trochanter there was perceived this morning a dark spot of the size of half-a-crown; and, on touching it, the cuticle peeled off, evincing incipient mortification of the part. He was directed to take three grains of sulphate of quinine every four hours, and to have wine and generous diet.

12th. Pulse 120. The original wound appeared healthy; in the centre of it, the peritoneum must have given way, as a part of the intestine was seen bulging out a little, with healthy granulations on the surface. This was ordered to be kept from protruding by a pad of wet lint, covered with straps of adhesive plaster and a bandage. The sac was quite flat; there was some discharge of dark sanguineous matter from it through the wound in the groin, with some coagulum. There was a considerable discharge of unhealthy looking matter from the nates. The dark spot of sloughing over the trochanter was separating. The hiccup had left him since yesterday.

A sudden change took place about ten o'clock at night. He began to be delirious; and in a short time he became insensible, gradually got worse, and died about three o'clock the following morning.

POST-MORTEM EXAMINATION. The portion of intestine which was denuded of peritoneum was perfectly healthy, and was quite adherent to the surrounding parts. The whole of the intestines were in a healthy state, and presented no sign of inflammation; neither was there any appearance of peritonitis. The aneurismal tumour was in the external iliac artery; it occupied the whole of the lower portion of the iliac fossa, and must have, from its bulk, caused considerable pressure on the surrounding parts. The ligature had been applied about an inch and a half below the bifurcation of the aorta; it contained nothing but

the artery, and was quite loose in the wound. The common iliac artery was healthy both above and below where it had been tied. The aneurismal sac had been completely emptied of its contents. Its coats were in a state of gangrene, which destroyed almost the whole of the external iliac artery. The gangrene had also extended to the surrounding tissues, and to the iliac and gluteal muscles, which were converted into a soft pulposus mass. There was a considerable quantity of grumous matter in the fossa of the ilium, similar to what had passed during life.

Although this case was unsuccessful, I have thought it necessary to publish it, as I only find on record those cases which have been successful—I believe about six in number.

Islington, Liverpool, August 1852.

ON SUPPURATION IN BONE.

By HENRY LEE, Esq., F.R.C.S., Surgeon to the Lock Hospital, Assistant Surgeon to King's College Hospital, etc.

(Continued from page 14, in Number for January 1852.)

II. PURULENT INFILTRATION OF BONE.

WHEN suppuration takes place in bone, and the fluid is neither limited by a cyst, nor by condensed bony matter, it will escape into the surrounding cancellous structure. Any diseased secretions may in a similar way infiltrate a large portion of the interior of a bone, and may there produce much local and constitutional derangement. Unless relief be afforded by artificial means, the morbid matter has no means of escape, and can be removed only by being received into the circulation, or by the lengthened process of ulceration or necrosis.

The free communication which exists between different parts of the cancellous structure of a bone is illustrated by a very simple experiment. If a small hole be bored in the sides of an adult bone, and water be injected, it will without difficulty permeate the whole of its interior; or, if the experiment be performed upon the bone of a younger animal, (up to the time at which it attains its full development), the whole of the shaft will be injected, but none of the injection will penetrate to the epiphysis. In like manner, diseased fluids, when they escape into the cancellous structure of bone, beyond the limit prescribed by the adhesive inflammation, are confined only by the dense osseous parietes, or by the junction of the epiphysis with the shaft.

The accompanying wood-cut represents a section of a femur infiltrated with pus, after an injury which had exposed a large portion of the cancellous structure of its lower extremity.

The line of separation, formed by the junction of the epiphysis with the shaft of the bone, is of much importance with regard to operations involving the extremities of the long bones in young patients. Up to the age of seventeen, and perhaps later, the epiphysis may be separated from a long bone without injuring its structure. In such