

ascended to within an inch of the umbilicus. And the leg was not only cold, but of a bluish-purple colour from the knee downwards, with some large vesicles on the calf. It was plain that the mortification, if allowed to proceed, must prove fatal in two or three days at most. There was reason to think that room still remained for tying the common iliac; and that if this were done, the process of mortification might be stopped, by amputating the thigh. We therefore resolved that an attempt should still be made to save the patient's life.

"The external incision was between six and seven inches long, extending from a little above the external ring upwards in the direction of Poupart's ligament, but diverging from it with a slight curve inward. The parietes of the abdomen were readily divided, and little difficulty was experienced in turning back the peritoneum from the tumour, which was done cautiously to prevent rupture of the membrane on the one hand, or of the sac on the other. I felt the external iliac artery beating on the upper surface of the tumour, and traced it back until it became free, immediately beyond which the internal iliac came under the finger, and beyond this the common trunk lay quite free. So far the operation, however formidable, had not been attended with much embarrassment. But in proceeding to pass a ligature round the vessel, I found the narrow space which was all that could be gained between the unyielding convex surface of the tumour, and the peritoneum distended by the viscera, and which was nearly equal in depth to the whole length of my hand, rendered the employment of aneurism needles very perplexing and uncertain. Having tried several of different kinds, I at length succeeded in passing one of the simplest form; and then having the parietes of the cavity held carefully aside by iron spatulas, got a view of the ligature, and drew it out by means of a hook. A single firm knot was tied on the vessel, and one end of the thread cut away. The edges of the wound were stitched together.

"In the course of the day, the tumour became smaller and softer. The coldness and discoloration of the limb extended above the knee, and the patient complained of inability to retain anything in his stomach. On the 9th, he was in much the same state, with some tympanitic distention of the abdomen. On the 10th, he was no worse. On the 11th, amputation of the thigh was performed close above the discoloured part of the limb. On the 12th, the patient died.

"On dissection, we found the common iliac firmly tied, exactly at the middle point between its origin and bifurcation, without any inclusion or injury of the neighbouring parts. The vessel contained a clot above and below the obstruction. The peritoneum showed traces of much inflammation, but not general or very extensive. The nodular inequalities of the surface of the tumour depended on the glands of the groin, which were enlarged and elevated by the subjacent swelling. The aneurism was of great extent, occupying the triangular hollow of the thigh, and stretching up into the pelvis, so as to fill the cavity of the *ilium*, and even extend considerably beyond it towards the back. The ramus of the pubes was exposed and rough, and the capsule of the joint was nearly if not completely perforated by absorption.

"The external iliac and its continuation the common femoral artery lay intimately incorporated with the aneurismal sac, but remained quite entire except for about an inch at Poupart's ligament, where the coats of the vessel were deficient to this extent, on its inner or inferior surface."

47. *Club-foot treated by Operation.*—Dr. LITTLE has recorded in the *Lancet* six cases of club-foot, treated by division of tendo Achillis.

The first case was one of congenital talipes varus verus, affecting both limbs. The subject of it was a boy 16 years of age; the whole weight of his body was supported on the ball of the little toe, which was the only part which touched the ground. The patient's progression was, of course, extremely laborious and difficult. On the 11th April, 1837, Dr. L. divided both the Achilles tendons with a sharp-pointed bistoury. This instrument was passed through the skin, one or two fingers breadth above the malleolus internus, with one of its sides turned towards the tendon, the other directed towards the deeper muscles and the

tibial vessels and nerves: as soon as the point of the knife passed beyond the external edge of the tendon, and had nearly reached the skin of the opposite side, the knife was turned, so as to bring its cutting edge to press against the tendon, which was divided at one stroke in the act of withdrawing the knife. The limb was then secured in a pasteboard splint, so as to prevent motion, and the third day Stromeyer's foot boards were applied and extension commenced; at first very slightly, and the force gradually increased daily. On the 1st Sept. 1837, the patient was able to walk ten or twelve miles without difficulty.—*Lancet*, March 17, 1838.

The *second case* was one of talipes equinus acquisitus of right foot, arising from paralysis of the anterior tibial muscle, in a girl *ætat.* 14. The point of the foot only touched the ground, the heel being drawn up between two and three inches.

On the 16th August, 1837, the tendo Achillis was divided; on the 19th Stromeyer's foot board was applied, and very slight extension exercised; and on the 15th Nov. the patient was able to walk extremely well.

The *third case* was one of talipes equinus acquisitus verus, converted into talipes varus spurius, through having had to bear the weight of the body. The subject of it, was a boy *ætat.* 15, who until the age of two years was healthy, when he was attacked with typhus fever, during which he had a fit at night, which left him with his left arm and leg spasmodically contracted. The deformity of the foot has constantly increased up to the present time. With the assistance of a stick he is able with great difficulty to walk.

On the 26th February, Dr. L. divided the tendo Achillis. May 8, Dr. L. reports the patient as without any deformity, and as having often walked with comfort 8 or 10 miles a day.

The *fourth case* was one of talipes equinus acquisitus, from shortening of gastrocnemii, induced by the cicatrisation of extensive abscesses, which had extended in various directions among the muscles on the posterior part of the leg, accompanied by carious bones, particularly of the tibia. The subject of it, a girl 27 years of age, was attacked with some disease in her right leg, accompanied with abscesses, &c., when she was 7 years of age, and which continued for eight years; during which period she was necessarily prevented from walking. The heel, in consequence of this confinement, the superior power of the gastrocnemii, and the contraction of the numerous cicatrices, was drawn up to the utmost possible extent, and the patient was compelled to walk on the extreme point of the sole of the foot. There was no other deformity of the foot. The muscles of the back and outside of the leg were bound down to the bones by eight or ten, or a dozen large indented cicatrices, some of them more than three inches in length. There was a difficulty in dividing the tendo Achillis in this case. "The lowest cicatrice, uniting skin, bones, and tendo Achillis, approached so near to the insertion of the latter, into the *os calcis*, within an inch of it, and the distance between the anterior surface of the tendon and the back of the ankle-joint, which is occupied in a healthy limb, by yielding cellular tissue, appeared, from the thickening and induration around the tendon, to be filled up by a dense mass of organised lymph, showing that some abscess formerly extended thither. There was also the necessity of keeping sufficiently far from the bursa, at the insertion of the tendo Achillis upon the one hand, and the objection of traversing old cicatrices with the knife on the other." Nevertheless Mr. Little resolved to operate, and on the 7th September, he passed a straight French bistoury into the inside of the limb, "opposite to the part where the tendon was least engaged by the adhesions, as far from the anterior surface of the tendon as was compatible with the safety of the posterior tibial vessels, &c., one side of the knife being directed towards the latter. The cutting edge was then directed outwards, against the tendon, the point being made to describe a quarter or third of a circle, of which the centre was that part of the blade in contact with the external punctures. By this cutting outwards, and circular motion of the point of the knife, nearly all fibro-cartilaginous adhesions, for they were felt by me to be gristly whilst cutting them, between the edge of the knife and the skin, as well as the tendo

Achillis, were divided, as in the method I usually adopt for cutting the latter only, without any puncture being made in the opposite side of the leg. After the withdrawal of the knife two small remaining portions of fascia, or bands of adhesion, were felt through the integuments to be still unsevered; they were cut by re-introducing the bistoury. There was but one wound, a quarter of an inch in length, which healed immediately by first intention, the wound having been dressed and the limb treated as is described in the preceding cases."

On the sixth day Stromeyer's foot board was applied, without attempting much extension. After a few days the cord of the apparatus was slowly tightened, though with very little amendment. The patient complained of restless nights, and on the eighth day, Dr. L. found, to his disappointment, that the foot was nearly in the same position as before the operation; he was therefore certain that some unusual impediment to the bending of the ankle existed. On the eighteenth day after division of the tendon, when all swelling had subsided, Dr. L. was able to satisfy himself that there was a firm band passing from the os calcis, or from the inferior portion of the divided tendo Achillis, to the lowest cicatrix of the fibula; and he determined to divide this band. This he did after the manner of dividing the tendo Achillis, except that he introduced the knife upon the outside of the limb. The wound healed on the second day; Stromeyer's foot board was then applied, and the same degree of extension which had previously given much pain, was now borne with comparative ease, so that the patient was able to walk about. The heel gradually descended, and fourteen days after the second operation she was able to put the heel and entire sole to the ground; which she had not done for twenty years. The limb gradually improved, and at the date of the report, the patient is represented as being able to walk or dance as if the limb had never been contracted.—*Lancet*, May 26, 1838.

Case *fifth* was a lady *ætat.* 24, with talipes varus acquisitus of right foot. This patient, like the last, had had, nine years ago, numerous abscesses in different parts of back and outside of the leg, with necrosis of tibia and fibula. Several large pieces of bone were removed, and after suffering four years the abscesses healed. The gastrocnemii were, however, contracted, and the heel was drawn up two or three inches. She was placed under a mechanist of repute and an appropriate apparatus applied and continued for five years, without any other benefit than preventing the contraction from increasing.

Aug. 1, Dr. Little divided the tendo Achillis. The next day Dr. L. felt a small string or bridle remaining undivided at the part where he cut the tendon, this he divided by a very minute puncture. The fourth day, cord of apparatus tightened for first time. After this the extension was gradually increased, and in six weeks she was able to walk about in a common shoe, the ankle joint possessing the usual extent of motion.

The *sixth* case was one of talipes varus—the patient an adult. The tendons of the gastrocnemii, tibialis posticus and tibialis anticus were divided, and at the end of seven weeks the patient trod upon the entire sole and heel.

Dr. Little has found in some of his cases the pressure of the apparatus against a prominent part of the limb to cause inflammation and ulceration. This accident he has prevented, or remedied where it has occurred, by interposing between the splint and the part pressed upon, an air cushion.—*Lancet*, June, 2, 1838.

48. *Luxation of the Thigh of seven and a half months' standing. Fracture of the Femur during efforts of Reduction. Remarks by M. MALGAIGNE.*—A young man of 17 entered the service of M. Velpeau, at La Charité, in December, 1837, with a luxation upwards and backwards of the thigh of seven and a half months' standing. From a minute examination of his history and symptoms M. Malgaigne judged that the luxation had been primitively incomplete and directly backwards. At the period of examination the dislocation was complete, though the head of the femur was still very distant from the iliac fossa and the ischiatic notch, being at furthest but half an inch from its cavity. M. Malgaigne thinking it still curable, undertook, at the request of M. Velpeau, its reduction. On the