Remarks on aneurism of common femoral artery, extending into the iliac fossa : simultaneous ligature of the external iliac, superficial femoral, and profunda arteries : cure / by George Buchanan.

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REMARKS
ON
ANEURISM OF COMMON FEMORAL ARTERY, EXTENDING INTO THE ILIAC FOSSA:
SIMULTANEOUS LIGATURE OF THE EXTERNAL ILIAC, SUPERFICIAL FEMORAL, AND PROFUNDA ARTERIES: CURE.

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Cases of inguinal aneurism, in which ligature of the main trunk above, and the two subdivisions below, is necessary, or at least has been followed by cure, are rare. I was induced to adopt the practice, in the patient here referred to, in consequence of the ultimate result of a case I had a year ago, in which ligature of the external iliac was accomplished with perfect success, so far as the operation was concerned; cicatrisation took place in a week; but pulsation returned in the sac, which burst into the thigh, the blood infiltrating all the tissues; and the issue was instantaneous exhaustion, and death in forty-eight hours after the rupture. At that time I determined, if a similar case should come before me, to ligature below as well as above the aneurism—instead of waiting till return of pulsation in the sac should show this to be necessary, then, probably, being too late.

William McV., aged 48, a carpet-weaver, had used his right leg to drive a heavy treadle, for ten hours a day, during more than twenty years. In March 1880, he fell and strained his right knee. This confined him to bed; and, in about three weeks, he discovered a small lump in the right groin. This continued to grow till the middle of May, when he was admitted to Paisley Infirmary. He was kept at perfect rest, had his diet regulated, and had iodide of potassium administered. When he went to Paisley Infirmary, there was a soft pulsating tumour, occupying Scarpa's space, and extending along and beneath Poupart's ligament almost its whole length. Subsequently to his admission, a pulsating swelling appeared above Poupart's ligament, occupying the iliac fossa. From the middle of May till the beginning of July, both these swellings increased in size; but the pulsation continued stationary, and not augmented. I saw him in Paisley, with Dr. Donald, who requested me to take him into the Glasgow Western Infirmary, where he was admitted on July 13th, 1880.

On admission, his state was described as follows. He was a spare man, of feeble appearance, and this he attributed to want of appetite and restricted diet, as well as to want of rest from pain in the limb. Scarpa's triangle was occupied by an elastic swelling, ovoid, with a broad fusiform, firmer projection, extending below Poupart's ligament to near the spine of the ilium. Above Poupart's ligament, there was a large ovoid elastic swelling, occupying the anterior half of the iliac fossa, and extending as far towards the middle line, as to completely overlap the iliac artery. All these different prominent parts of the swelling pulsated synchronously with the arteries in the limb—the pulsation being eccentric, and in all parts. A thrill was communicated to the finger-point, and a *bruit* was heard by the stethoscope at all points of the tumour. The parts above and below Poupart's ligament, which extended externally, are firmer than that over the site of the artery; which gave the impression that they are partially occupied by clot, or were surrounded by inflammatory effusion, which was not unlikely to be present after such long-continued pressure and irritation, caused by the presence of the aneurism.

The operation was performed on July 16th. I made an incision in the integument over the ovoid protrusion in Scarpa's space, and extended it downwards to beyond the apex of the triangle. With a little careful dissection, in the usual way, I exposed the trunk of the superficial femoral artery, an inch below where it left the aneurismal sac. To this I applied a catgut ligature, and effectually checked the flow of blood backwards into the sac; but, of course, without any influence on its size or motion. I next extended the incision in the integument upwards, to an inch above Poupart's ligament, and carefully divided the deeper structures, on a director, with a probe-pointed knife. I now found that the aneurismal sac, which had forced its way up underneath Poupart's ligament, was resting on the trunk of the external iliac artery; but, by having the bulging sac-wall held aside by a broad retractor, I got a view of the vessel, and applied a catgut ligature to it. Pulsation was now completely arrested in the aneurism and its prolongations. But, remembering the result of my last case, and reflecting that the profunda was between the two ligatures already applied, I determined to tie it also. But the whole of Scarpa's space was plugged up by the bulk of the aneurism, so that there was some difficulty in reaching the profunda. I resolved to lay open the sac, turn out the clots, search for the opening of the vessel in the bottom of the sac, pass a large bougie into the vessel, and use that as a guide to enable me to reach it. When I had split open the pouch, and turned out the soft clots mixed with fluid blood, I found at the back some which were tougher than the former, and which would need a good deal of pulling to extract. They were so placed that they interfered with my getting my finger-point into the orifice for which I was searching. But I then learned that the inner wall of the sac was much thicker and stronger than the outer, which latter had at one part given way, so as to make the aneurism a diffused one—the diffused blood having formed the ovoid external projections described. The nearly emptied sac could now be pulled steadily by its strong inner wall, so as to leave the internal half of Scarpa's triangle free. Getting an assistant to pull the sac and artery well forward and outward, by a little manipulation with the handle of a knife I succeeded in exposing the trunk of the profunda, behind the sac, and I applied a catgut ligature, about half an inch from the aneurism. During this latter manipulation reflux of blood from the profunda into the aneurism, was prevented by a plug of carbolised lint pressed into the bottom of the sac. The only bleeding points which required ligature were the divided ends of the circumflex ilii, at Poupart's ligament, which I tied at the time of cutting it, in the dissection to expose the external iliac.

The whole of the proceedings were conducted under carbolised spray, and the wound was dressed with antiseptic precautions.

It is unnecessary to give detailed reports of the after-treatment. The circulation was established in the limb very rapidly, so that artificial heat was discontinued in a week. The wound, which remained antiseptic throughout, was a long time in healing, owing to the disintegration and discharge of a quantity of the clot, which had been disturbed, but not entirely removed. Probably the delay in cicatrisation partly depended on an obstinate attack of diarrhœa; but, ultimately, the diarrhœa was overcome, and the cure was complete.

This case, which resulted in a perfect cure of the Aneurism, was complicated by a considerable slough of the outer surface of the foot, which was quite healed before left Hospital — a good deal of Anæsthesia remained

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