CASE
OF
AXILLARY ANEURISM,
SUCCESSFULLY TREATED
BY TYING THE SUBCLAVIAN ARTERY.

BY CHARLES MAYO, Esq.
SURGEON TO THE COUNTY HOSPITAL IN WINCHESTER.
PRESENTED BY MR. STANLEY.

Read May 24, 1831.

“ MY DEAR SIR,

JUST ten years ago you did me the favour to communicate to the Medico-Chirurgical Society a case of Axillary Aneurism, in which I had tied the subclavian without success*, I have now great pleasure in forwarding to you the following case, in which I conceive my success may be attributed to avoiding the delay of the operation which took place on the former occasion.

“ Your’s very faithfully, &c.

“ To EDW. STANLEY, Esq.
“ Lincoln’s Inn Fields.”

“ CHAS. MAYO.”

* Vide Med. Chir. Trans. Vol. XII. p. 12.

March 19th, 1831. William Matthews, aged 49, a gentleman's groom, and a pensioner from the 14th regiment of dragoons, applied for my advice respecting a painful affection of the left breast and shoulder, from which he had suffered more or less for the last month, and had been bled and treated with sudorifics and embrocations, under the idea that his complaint was rheumatism. On removing his clothes, I observed a considerable tumour beneath the left clavicle, which from its pulsation, I recognized to be aneurismal; and from its ceasing to pulsate and becoming flaccid when I pressed upon the subclavian artery, where it passes over the first rib, I immediately decided that his disease was an aneurism of that vessel, at the point where it assumes the name of axillary. I bled him to twenty ounces, and ordered him a mixture with Antimon. tart. and Tinct. Digital., desiring him directly to leave his employment and keep his arm in a sling. He could not remember that he had perceived any thing of the swelling, till within the last fortnight.

March 20th. I found him in bed lying quite still on his back, which he said was the only posture in which he could obtain ease, from the violent gnawing pains about the shoulder, breast, and back, evidently arising from the irregular distention of the axillary plexus of nerves by the aneurismal sac. He had taken an opiate at bed time,

and an aperient this morning, with good effect; continuing the mixture with Digitalis, which appeared to have moderated the fulness and frequency of the pulse.

24th. He continued the same treatment at his own house till this afternoon, when he was removed to the hospital, where after due consultation, it was resolved that the progress of the disease could only be effectually arrested by placing a ligature on the subclavian above the clavicle, and that with as little delay as possible.

26th. At ten this morning, with the assistance of my colleagues, I proceeded to the operation, and drawing down the skin of the neck, I made an incision about three inches and a half in length on the surface of the left clavicle, extending from the insertion of the sterno-cleido mastoideus muscle to the clavicular portion of the trapezius; by this the platysma myoides was exposed, which as well as the subjacent fascia I carefully divided, for upon the latter many branches of the external jugular vein were found, several of which I was obliged to divide in the progress of my dissection through the cellular substance, and secure them with ligatures. I traced the edge of the omohyoideus muscle, traversing the upper part of the wound, and directly below it I could place my finger on the artery as it passed over the first rib,

which seemed to be about an inch and a half or two inches from the surface; to this point I directed all my attention, and endeavoured to clear my way to the artery by cautious touches with the edge of the scalpel, and by tearing the cellular substance with its handle and with a director, till at length I was able to get my nail upon the rib and then under the artery, so that after various efforts I passed a common blunt aneurismal needle under it, armed with a strong round ligature, and having ascertained that nothing else but the artery was included in the ligature, I tied it with a double knot, drawing each knot tight with the iron rings invented by the late Mr. Ramsden. The subclavian vein appeared just within and below the superior border of the clavicle, but formed no impediment to the operation; the branches of the external jugular, however, were very annoying, and kept the wound continually filled with blood, and the apprehension of wounding larger branches limited the extent of the internal wound to two inches at most. He bore the operation with great courage, though with some impatience, as it occupied rather more than twenty minutes; the pulsation ceased, and the pains in the shoulder were much relieved. In the evening he felt his neck very stiff and sore, and was harassed with a short cough, which shook him, without enabling him to expectorate. He took tea and gruel, and had an opiate at bed time.

27th. Had passed a tolerable night, but was sick and faint this morning, which may be attributed to the opiate; took Pil. Cambog. C. gr. v. which moved his bowels two or three times. Pulse eighty-four; left hand and arm quite warm, but feeling heavy, and no pulse at the wrist; wound easy, tumour greatly subsided. Being feverish and worried with cough at night, I took fʒviij. of blood from the arm, which was slightly buffed.

28th. Had a better night, and the cough much relieved by the bleeding. Dressed the wound, and found the edges united except where the ligature passed out.

30th. Dressed the wound, and found considerable discharge; tumour much reduced, and apparently empty.

April 1st. A feeble but regular pulsation was this day felt in the radial artery at the left wrist.

3d. Dressed the wound without finding much discharge; he had a severe rigor while sitting out of bed at the night-table, which was relieved by a dose of Sp. Ammon. Co. with Tinct. Opii.

5th. Complains of pain in the aneurismal sac; pulse eighty-four, and that in the left wrist improving in strength.

6th. I found this morning that a considerable quantity of grumous bloody discharge had escaped from the wound, which had opened a little at its acromial extremity, as well as at the point where the ligature passes out, and it appeared to me that the discharge came from the cavity of the sac, as it was much more flaccid. In the evening so much more had discharged as to require dressing again.

10th. Several small ligatures on the veins have come away within this day or two; the same bloody discharge has continued more or less, and seems now to flow from the tract of the ligature, so that it seems probable that the ligature has separated on the axillary side, and that the discharge may come from the sac through its unclosed mouth, as the dilatation of the artery commenced very near the point where the ligature was applied. Pulse seventy-eight, appetite good, and cough less troublesome, but the pulse at the left wrist has not been perceptible for the last two days.

13th. The ligature came away this morning, and appeared to have been separated some time, as the knot was just within the orifice, entangled in some spongy granulations.

18th. The wound continues open at two

points, where spongy granulations protrude and are daily touched with Argent. Nit.—Pulse returned in the left wrist, and he is otherwise in good health.

April 23d. I passed a director from one fistulous opening to the other, and divided about three quarters of an inch of the cicatrix between them, afterwards touching the whole surface with Argent. Nit.

26th. Wound much contracted, but still spongy. Caustic continued, with lint and sticking plaster. He leaves the ward and walks out of doors.

May 2d. His strength improves daily; applied the Hydr. Nitrico-oxyd. to the small fungous fistula still remaining.

10th. The wound is completely cicatrized, and he will have his discharge as cured, to-morrow. The tumour has quite disappeared, and the arm is recovering its strength, but the pulse is not now to be felt at the wrist.

In concluding my account of this case I should observe, that the patient was of an athletic frame and six feet in height; that the tumour at the time of the operation extended nearly the whole length of the clavicle, and consequently was four or five

inches long and about three inches in depth, but the clavicle did not appear to be much displaced. I am happy to add one to the few instances confirming the propriety and success of this operation, and there can be no doubt that its failure has in most instances been owing to the advanced stage of the disease, when the operation was undertaken; the proximity of large branches to the point where the ligature is applied, as stated in my former case, may also be a cause of failure, which also must be increased by delay, as we may conclude that they will acquire a greater magnitude from the obstruction of the aneurism beyond; it strikes me that this objection may be somewhat avoided by applying the ligature upon that part of the artery which lies upon the rib, and as far as possible from the scaleni, for which reason I can see no necessity for exposing the edges of those muscles as some inculcate, neither can I see the necessity of dividing the sterno-cleido mastoideus, which Mr. Key so strongly recommends in the valuable observations attached to his successful case in the 13th Vol. of the Med. Chir. Trans.

Winchester, May 14th, 1831.