ACCOUNT
OF
A CASE OF AXILLARY ANEURISM;
IN WHICH
THE OPERATION OF TYING THE SUBCLAVIAN ARTERY
WAS SUCCESSFULLY PERFORMED.

By HARRY LEAKE GIBBS, M.D.,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, IN LONDON.

COMMUNICATED BY

B. C. BRODIE, Esq.

Read July 8, 1823.

IWAN NIKITIN, æt. 35, a cooper, in the service of the Imperial Russian Marine, was received at the General Naval Hospital of St. Petersburg during the last week of November, 1822, labouring under aneurism of the upper part of the axillary artery, or, more properly speaking, of the lower part of the left subclavian artery, the effect of a blow from a rope, in the act of throwing some kegs over his shoulder, a month previous to admission. At this time the tumor was about the size of a walnut, elevating the pectoral muscle towards the shoulder. As the patient was plethoric and muscular, four

venesections followed. Cathartics were employed during each week of his stay in the hospital, previous to the operation, together with an extremely low diet, and the use, for a fortnight, of the tinct. digitalis. By these means the circulation was much abated; but, as the tumor gradually increased to the size nearly of a goose's egg, causing pain in the arm and general restlessness, it was determined to attempt the operation. This I did on the 5th of January, 1823, in the presence of Drs. Leighton, Hieroth, Hassing, &c., the medical gentlemen of the Naval Hospital, and a vast number of spectators. I have particularly to thank Dr. Arendt, Chief of the Artillery Hospital, for his very able assistance, both during and after the operation.

January 5th, 1823.—The patient being placed on a table, with his head towards the light, inclining backwards towards the right shoulder, the integuments above the clavicle were pinched, or drawn up, and being pierced with a straight bistoury, presented an incision of three inches in length, parallel to, and a quarter of an inch above, the clavicle. The platysma myoides was thus divided, and the external jugular avoided. This vein causing embarrassment, from its alternate swelling and collapse, I enlarged the incision an inch inwards, and, passing a director under the clavicular portion of the steno cleido mastoideus muscle, close to the clavicle, separated it from its attach-

ments. Its contraction afforded tolerable space, and by means of the finger, the subclavian artery, as it passes over the first rib, was felt, but very faintly, from the state of syncope into which the patient had nearly fallen, at the same time that he had a severe rigor. I delayed the operation ten minutes, covering the poor man with blankets, and giving him cordials. At the expiration of this time, the pulse of the artery had recovered itself, and being separated by the nail and finger from the connecting parts, a round ligature was passed under it, by means of a stout silver needle (much curved), and fitted to a strong handle: the instrument being passed under the vessel first, the ligature was passed through the eye, and drawn under. I instantly raised the vessel, and finding that the pulsation of the tumor was thereby stopped, tied it in a double knot, as it passes over the first rib. The wound was then brought together with adhesive plaster, the patient dressed and put to bed. I must own the operation was tedious; but having succeeded in tying the artery, my hopes of final success were sanguine. A bottle of warm water was kept under the hand, and the left arm enveloped in, or surrounded by, a pillow-case filled with warm bran, and renewed as required. In the evening I gave him seventy drops of tincture of opium, as he complained of pain towards the shoulder.—*Second day.* Slept towards morning. Pain ceased. Veins on the back of the left hand slightly distended. Pulse getting

up. Patient appears calm. 8 *p.m.* Pulse increased to 98, and fuller. Was bled to the extent of 3xviij by a large orifice. As he had had no stool since the evening prior to the operation, ordered R Infus. fol. Sennæ ʒiij in quo solve Sulph. Potassæ, ʒji Mannæ Calab. ʒjv, Nitri depurati ʒss M. statim sumendus.—*Third day.* The medicine has operated three times. Pulse 96, but soft. Pain very slight in the left shoulder. Tongue clean. Skin moist. Diet of water-gruel, roasted apples, and stewed prunes; sub-acid drinks, with mistura salina.—*Fourth day.* Slept nearly the whole of the night. Pulse soft, 96. Dressings removed. Ligature hanging out towards the inner part of the wound. Suppuration commenced. Enema in the afternoon—operated well.—*Fifth day.* A tremulous or undulatory motion to be felt in the left brachial artery. Arm warm. No pain or œdema. Suppuration advancing. Pulse 86, and soft. Slept tolerably well.—*Sixth day.* Pulse 86, and soft. Counted 36 in the minute, *very slight*, in the left brachial artery—none at the wrist. Purge repeated.—*Seventh day.* Purge operated well. Slept well. Pulse very slight to-day in the left radial artery. Arm warm. Veins on back of the hand more distended.—*Eighth day.* Going on well.—*Ninth day.* Pulsation at the left wrist more distinct.—*Tenth day.* Has slept well. Can move the fingers.—*Eleventh day.* Suppuration diminished. Put the ligature a little on the stretch, and fixed it with Emp. Adh. Com-

plains of cough. Empl. Vesicat. Lyttæ inter scapulas, and ordered an emulsion.—*Twelfth day*. Ligature came away readily. Pulse 70. Felt also at the left wrist; but very weak. Wound united at the extremities.—*Fourteenth day*. Cough better. Pulsation in the left brachial and radial arteries not so perceptible as before.—*Sixteenth day*. Wound healing fast. Cough ceased. Left arm well nourished; but the pulsation at the wrist not always to be felt.—*Eighteenth day*. Tumor quite flat, and under the pectoral muscle. Walked a little to-day. Pulse 68.—*Nineteenth day*. Going on well. Wound nearly healed. Pulsation in the left brachial and radial arteries not to be felt.—*Twenty-first day, January 26th*. Found him walking about. The wound healed, except a very small spot in the centre, from which a little lymph has oozed for some days. Arm warm, surrounded only with flannel. Has some strength in the fingers. Pulsation not perceptible, but the arm well nourished. Appetite and sleep good, and likely soon to be completely cured.

The arm and upper part of the shoulder must have been nourished, in the first place, by anastomosing vessels coming from the neck and right scapula; but *especially from the extreme branches of the left epigastric inosculating with those of the left mamma externa*, by which the blood at first was returned to the axillary artery below the tumor,

and so onwards. But I conceive that as the anastomosing or collateral arterial branches of the shoulder and arm generally began to dilate, the blood found a readier course by them, in preference to the old channel. If this be true, the cessation of pulsation in the brachial, radial, and ulnar arteries is accounted for, as well as the nourishment of the arm.