A SUCCESSFUL CASE
OF
SIMULTANEOUS LIGATURE OF THE CAROTID
AND SUBCLAVIAN ARTERIES
FOR
INNOMINATE ANEURISM.

BY
H. LANGLEY BROWNE, M.R.C.S.,
SURGEON TO THE WEST BROMWICH HOSPITAL.

(COMMUNICATED BY LAWSON TAIT, F.R.C.S.)

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*History.*¹—John Astbury, æt. 32, puddler, was admitted into the West Bromwich Hospital, on June 29th, 1881. Has had no previous illness of note. Has no distinct history of syphilis, as although he has had sores on the penis, there have been no eruptions or sore throat since. Has four children all healthy. Fifteen years ago an iron bar, when passing through the rolls red hot, curled up and ran through his neck in front of the sterno-mastoids. Large scars still mark this injury, which on the right side extends from the thyroid cartilage to the clavicle. Has not been in-

¹ The history of this case, and most careful daily notes of it, were taken by Mr. S. A. Welch, the house surgeon.

temperate. About Christmas, 1880, had severe earache on the right side and jumping pain in the right shoulder. Continual pain between the shoulder-blades. Constant cough. Left his work early in January, 1881, the pains then being so severe that he could sleep very little, and was always worse when moving. Got very thin and ill. Could not swallow solid food without washing it down. These symptoms increased week by week until his admission on June 29th, 1881.

Condition on admission.—Very anæmic. Right pupil contracted, left normal. Free from atheroma. Continual cough. A large pulsating swelling, three inches in diameter, behind and above the right sterno-clavicular articulation, behind the sternal end of the clavicle, and bulging through the first intercostal space. Normal percussion note over the chest except over the area of pulsation, which is dull. Loud bruit over the swelling conveyed along the right carotid and towards the right shoulder, distinct from aortic heart sounds, which are normal. Right radial pulse slightly retarded, and the tracing by the sphygmograph shows increased tension. The skin over the aneurism was irritated and the sac seemed to have very thin walls and was very tender and painful.

The man took fifteen grains of iodide of potash three times a day, and was put on liberal diet of chops, eggs, and milk (he had been half starved for three months), but neither diet, rest nor drugs caused any improvement in his condition. The sac was dilating very rapidly, and both soft and hard parts in front of it seemed to be absorbing under pressure. The advisability of a speedy operation, if any, being evident, it was resolved upon consultation to apply the distal ligature simultaneously to the subclavian and carotid arteries.

On the 11th July, 1881, under ether, an incision three inches long was made through the skin and superficial fascia, which were previously well drawn down, along the anterior border of the clavicle. The skin being then drawn up, with a little dissection the omohyoid

and outer border of the scalenus were easily found, the deep cervical fascia divided and the artery exposed. The ligature was passed from below round the third part of the subclavian and tied fast. Another incision three inches long was made along the anterior border of the sterno-mastoid muscle, dividing skin and superficial fascia. Owing to the adhesions and displacements caused by the old burn considerable difficulty was experienced in finding the sheath of the common carotid artery; but by dissecting through some muscular tissue, guided by the pulsation in the vessel, the sheath was found; and, being opened, the artery was cleared and a ligature passed round it and made fast above the point where the omohyoid should have crossed the vessel. The ligatures used were of chromic catgut, which had been kindly prepared by Professor Lister, and all the details of his method were most strictly observed throughout. A bone drainage tube was inserted.

After the operation the arm was wrapped in wool and bandaged to the side. At 1.30 p.m. the same day the right cheek and arm were cold; there was no pulsation in the radial or temporal arteries, and less pulsation in the tumour. At night he had much headache. Temperature 99.4° , pulse 92. Wounds redressed on account of free oozing. The highest recorded temperature was 100.6° ; this was in the evening after the operation.

July 15th.—Dressings changed and two sutures removed. A very slight trace of pus to-day, and on one other day, but only round the drainage tube. Slight pulsation in the temporal artery.

18th.—Tumour pulsating much less.

20th.—A very slight pulsation in radial artery. Patient feels very well, and can swallow easily.

27th.—Remove all sutures and find wound almost healed except where the bone tube is adherent; walls of sac feel much firmer.

August 5th.—No pulsation in the tumour over the clavicle.

19th.—Wounds quite healed. They have been superficial for some days, but have been kept open by a piece of drainage tube, which was adherent and undissolved. Tumour feels much more solid and safe. The patient is free from pain and very well.

September 6th.—The patient is up for four hours daily.

28th.—He walks about. Has no cough. The tumour seems firm. There is no bruit.

October 13th.—Patient went to Birmingham and was present at the meeting of the branch of the British Medical Association, and afterwards left the hospital.

November 8th, 1881.—Favorable conditions still continue. These may be due to the possible traumatic origin of the aneurism, as the hot iron certainly may have injured the vessel affected.

Note, June 25th, 1882.—The man has passed the winter well and has been out of doors all the time and free from cough. He has frequently pains in the right arm, and finds that he cannot lift heavy weights with it. His general health is very good. The tumour has sunk down into the chest behind the clavicle; it is smaller and seems firm. There is no bruit. The tumour moves with each pulsation of the aorta and is painless. The pupils are equal. There is *no* pulsation in the right radial or brachial, and the pulsation is so slight in the temporal as to be often doubtful whether it exists. So far the patient's condition is one of improvement, as he is better and stronger than when he left the hospital, although he has lived upon very poor fare.