CASE
OF
AXILLARY ANEURISM,

SUCCESSFULLY TREATED,

BY T. CROSSING, Esq.

SURGEON, DEVONPORT.

COMMUNICATED BY BENJAMIN TRAVERS, Esq. F.R.S.

Read Feb. 22, 1831.

HENRY LOBB, a stout muscular man, æt. 46, and of Salcombe, a small sea-port in this county, admitted into the Parochial Infirmary, at Devonport, June 10th, 1830, with the following appearances.

There is a diffused pulsating tumour, situated immediately under, and closely in contact with, the right clavicle; extending to the cartilage of the fifth rib, stretching into the axilla, and over the point of the shoulder. It has a very tense, elastic feel, and the pulsation is generally rather obscure, but at other times is so distinct as to be seen at a considerable distance from the patient. The tumour is not compressible, but the pulsa-

tion can always be stopped by pressing on the artery above the clavicle. The arm from the shoulder to the extremities of the fingers is swollen to an enormous size; is benumbed, and has lost all power of motion. The pulsation at the wrist cannot be felt, and the arm is kept nearly at a right angle in consequence of the magnitude of the swelling in the axilla; the pectoral muscle and integuments covering it being stretched to the greatest extent. He is always in pain, and at times to a most agonising degree; is unable to lie back in the bed, but is continually in a sitting position, with the arm supported on a pillow, and the body bent forward. His countenance is marked with great distress.

The patient's employment has been that of a pilot and fisherman, which constantly exposed him to the vicissitudes of the weather. He had always enjoyed a good and uninterrupted state of health until about "thirteen" weeks since, when after exposure to a cold night, having his arms repeatedly, and for a considerable time, immersed in sea-water, he felt on the following morning great pain just above the elbow-joint, where there also appeared a little tumefaction. The pain, after increasing for a fortnight, became so severe, that he could no longer continue his occupation. He then applied to a surgeon of the neighbourhood, who considered it a case of rheu-

matism. Leeches, blisters, &c. were used, without relief. The forearm began to swell, accompanied with darting pains; the swelling increasing upwards, and the arm very soon becoming benumbed and useless. About a month from the time when he was obliged to relinquish his usual employment, he discovered a tumour, the size of a walnut, situated midway between the clavicle and tendon of the pectoral muscle. Its appearance at that part he thinks was nearly sudden. It gave him no pain, but he had previously for several days experienced great uneasiness in the axilla. It rapidly increased, and at the end of a fortnight attained the size before described.

At this period he presented himself to the notice of Mr. Cartwright, late surgeon of the Middlesex Hospital, who happened to be on a visit at Salcombe; and it was then for the first time that the disease was suspected to be aneurismal.

Mr. Cartwright recommended him to get into some public infirmary or institution without loss of time, for the purpose of undergoing an operation, as the only probable means of relief.

The poor man in consequence of being out of employ, and having no means to subsist on, was compelled to seek that aid which this, his parish, could afford him.

I saw him soon after his arrival ; but from the fatigue of his journey, a distance of about thirty miles, he was unable then to enter into the particulars of his case. The history above detailed, I subsequently obtained from himself and his wife. I had no doubt of its aneurismal character ; but as the parietes were feeling thick and firm, I conceived there was no ground for entertaining any immediate apprehensions. Merely to keep up the appearance of doing something, I directed a cold evaporating lotion to be used.

On the following morning I requested the opinion of several of my friends. The man was then enabled to give a very satisfactory account of himself, and left no doubt in their minds as to the nature of the disease ; my own, as before observed, having been previously quite made up on the subject. It was thought advisable to submit him to some preparatory treatment before any attempt to operate was made, and he was accordingly placed on a low diet, occasionally bled, &c. ; from which he experienced some trifling relief for about ten days. The symptoms then became so urgent that any further delay would have been unjustifiable. I therefore requested the favour of my friends, Dr. Thomas, and Messrs. Lower, Williams, and Baldy, to meet me in consultation ; and they having fully concurred in the necessity

of tying the subclavian artery, that operation was performed on the following morning, June 23rd.

The patient was seated in an arm chair, the head directed to the left side, and supported by Mr. Buchan, one of the gentlemen who kindly gave me their assistance. The integuments over the clavicle being stretched upon the chest, I commenced my incision near the sternal attachment of the mastoid muscle, and cut freely on the bone for about three inches and a half; thus dividing at once the integuments and platysma myoides. The parts being now allowed to retract, left the lower margin of the incision half an inch above, and running nearly parallel with, the clavicle; and exposed the jugular vein to a considerable extent, which was easily drawn aside, and kept out of the way, with a blunt hook. The cervical fascia was next carefully divided from the clavicular edge of the sterno-cleido mastoideus to near the extremity of the wound, which brought into view the omo-hyoideus. This muscle instead of forming a triangular space, as it does in most instances, with the scalenus anticus and clavicle, ran in a line with, and just above, that bone. Finding this rather unusual course of the omo-hyoideus an impediment, I passed a director under, and divided it. The knife was now laid aside, and the remaining part of the operation

finished with the fingers, and a common director. Some loose cellular membrane, and a large fatty gland being removed, the artery was found immediately below this substance, and three considerable branches of nerves passing over the vessel, and in close contact with it. These were separated, and the ligature passed under it.

This part of the operation I found the most difficult. It required considerable force, and care to pass the point of the needle under without injuring the vessel, or separating it to a greater extent than is desirable, from its surrounding connections ; but using Weiss's ingenious instrument, both these injurious effects were obviated, and the ligature brought up from the eye of the needle with great ease. I then raised the artery, and finding the pulsation of the tumour cease and nothing besides included, tied it with a double knot just before it passes over the first rib. One end of the ligature was cut off close to the artery, the other left hanging from the wound, the edges of which were now brought together, and secured with one suture and adhesive straps. During the operation, which was borne with great fortitude, two arteries were divided, and immediately taken up ; and the patient on the whole did not lose more than two drachms of blood. From the time of leaving his bed to his return, a period of twenty-five minutes elapsed.

When the operation was completed, the tumour which had been the seat of constant distressing pain, soon became quite easy; and he was enabled to rest with his back supported by pillows in a way he had not done for many weeks; and the limb being enveloped in flannel, was placed in a suitable position. It retained the same temperature as the other. I left him in charge of a friend perfectly easy, and his mind composed. During the day he slept, and in the evening was refreshed and cheerful. Pulse eighty, free and soft.

June 24th. Six o'clock, A.M. Has passed a quiet night with some sleep; heat of the limb natural; the countenance much improved, and free from anxiety; pulse eighty-four; tongue a little furred, but moist; ordered a saline purgative mixture.

Twelve o'clock, A.M. Is quite easy; bowels have been freely purged. Pulse seventy-eight.

Ten, P.M. Has slept during the afternoon two hours, and perspired rather freely; limb continues as warm as the other; pulse eighty, and soft, though there is some throbbing about the shoulder, but the tumour is free from it; and on the whole he feels as comfortably as in the morning.

25th. Nine, A.M. He has rested well during the night ; no pain in any part ; heat of the limb continues natural ; and he feels as if he could move his fingers. The arm is softer ; the tumour more circumscribed, and compressible ; pulse eighty-four ; tongue clean, and moist ; bowels open.

Ten, P.M. Remains as well as at the morning visit, and is inclined to sleep ; during the day has gently perspired.

June 26th. Ten o'clock, A.M. Slept well ; quite easy and cheerful. The tumour in some degree diminished ; pulsation at the wrist doubtful ; has a tingling sensation in the arm and hand, both which preserve a due degree of warmth. Tongue clean, and bowels regular. Pulse seventy.

June 27th. The patient still going on satisfactorily. Dressings removed ; wound looks well, and healing fast. The tumour is considerably less ; has left the point of the shoulder, and feels softer in the axilla ; but œdema of the arm does not abate. The bowels are regular ; appetite increasing ; and he is allowed to take some chicken broth.

July 2d. Has gone on well since the last re-

port. The wound is healed with the exception of a small space where the ligatures are. The tumour has receded below the clavicle, is circumscribed, and has a fluctuating feel, particularly in the axilla, where a livid spot the size of a sixpence is observed. He feels a pricking sensation in the hand and fingers. Pulse seventy.

July 6th. One of the ligatures with which a small artery had been tied, came off this morning on dressing the wound, and in the evening slight hæmorrhage took place, but was easily subdued by cold applications. The patient became alarmed, the pulse rising to eighty-four, and throbbing, and the tumour more diffused. V. S. ad $\frac{3}{4}$ xvi.

July 7th. There has been no bleeding since last night, and he feels more composed. The tumour is again lessened, but there is considerable pulsation above the clavicle. The blood is sizy. He complains of a sore throat and headach. Pulse eighty, full and hard. V. S. ad $\frac{3}{4}$ xvi. Felt a little faint from the bleeding. Ordered Haust. Cathart. statim. Pil. Colocynth. c. Hyd. Submur. vespere : repetatur Haust. Cath. mane.

July 8th. Nine o'clock, A.M. The night has been passed tolerably; headach relieved; but sore throat continues. Pulse eighty. Bowels have

been well purged. Ordered Mist. salina c. Ant. Tart. alterna quaque hora s.

Eight o'clock, P.M. He has had a teasing cough during the day. The pulse continues full, and harder than in the morning, and the beating round the ligature is very strong. V. S. ad $\bar{\zeta}$ xvi. followed by slight syncope. Continue the purgative mixture. Bolus with six grains of submuriate of mercury.

July 9th. He is quite relieved; has slept well during the night, and had free perspiration. Cough abated; pulse seventy-six, and soft; and the throbbing over the clavicle nearly gone. The blood very much cupped and buffed. Bowels open.

In an operation of this kind to secure the life of the patient appears the chief, if not the sole object at which we aim; and in that respect from this time every thing went on most favourably, without indeed the least interruption. It would therefore answer no one useful purpose to carry on any further a diurnal statement of the case.

The ligature about the artery was retained for an unusually long period. It did not come away till the eighty-fifth day, although for several weeks

some force was employed to promote that process.

At this time, Dec. 28th, 1830, the man's general health is as good as can be; the circulation free and perfect throughout the limb; and nothing left of the tumour but a little thickening in the sac of the aneurism, along the edge of the pectoral muscle. There remains, indeed, some want of strength and sensation in the limb; but this cannot create surprise, when it is considered how long the muscles were kept in a state of complete inactivity, and the nerves exposed to the pressure of a tumour, occupying a space of twelve inches by eight.

In conclusion, I would recur to what I have stated, in describing the operation, respecting the existence of a gland immediately over that part of the artery, which was tied. This I have reason to believe is scarcely a deviation from ordinary structure, as in not less than a dozen subjects, whom I have examined, the same substance was found precisely in the same situation. I would therefore beg leave to ask whether, in most cases, this gland may not prove to us a better guide than the scalenus muscle; because from its being seated immediately over that portion of the artery which is usually tied, we are thus at once

directed to the vessel, and enabled to separate it from its contiguous cellular tissue to less extent than by any other mode. At all events, should the gland be occasionally found wanting, the muscle will still remain as useful to us as ever.

Perhaps it may not be amiss to mention here, that since the operation, it has been discovered, that the patient for more than ten years has been afflicted with an extremely large irreducible hernia. This fact gives additional confirmation to what I believe, from general experience, was previously well known; namely, that such an extensive detrusion from their natural situation of parts so essential to life, does not at all interfere with the successful result of some of the most important surgical operations.