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Halifax.

A CASE OF EXCISION OF THE SCAPULA FOR LARGE CYSTIC SARCOMATOUS GROWTH.

BY CHARLES A. MORTON, F.R.C.S. ENG.,

SURGEON TO THE BRISTOL GENERAL HOSPITAL AND TO THE HOSPITAL FOR SICK CHILDREN AND WOMEN; PROFESSOR OF SURGERY IN UNIVERSITY COLLEGE, AND OF ANATOMY TO THE ACADEMY OF ARTS.

A WOMAN, aged thirty years, came under my care on Nov. 18th, 1896, with a swelling in the position of the left scapula of four months' duration. There had been rather severe pain in it at times. The swelling was as large as the patient's head, smooth and round, with enlarged cutaneous veins over it. There was a freely fluctuating area, the size of the palm of the hand, in the centre of the swelling. The body of the scapula was buried in the swelling, and what seemed to be the angle was pushed much nearer to the spine than normal. There was a projecting mass of considerable size beneath the teres muscles, and the growth extended into the inner portion of the supra-spinous fossa, round the base of the spine. The acromion process and its junction with the spine and the region of the glenoid fossa seemed free from growth, and movements in the shoulder-joint were quite free. The whole mass of growth with the scapula was movable on the chest-wall beneath. An exploring syringe withdrew clear serous fluid from the fluctuating area in the centre of the swelling. It seemed probable that there was a cyst in a mass of sarcoma growing from the scapula.

I operated on Nov. 25th. Precautions were taken by the administration of brandy and the arrangement of hot bottles about the patient, before the operation began, to guard as far as possible against severe shock. An exploratory incision was then made into the cyst, and it was found to be part of an enormous sarcomatous growth. Excision of the scapula was therefore proceeded with. The exploratory incision was continued upwards and downwards along the vertebral edge of the mass for eight inches, and outwards over the spine and acromion as far as the acromio-clavicular joint, and the flaps turned up and down. I then divided the levator anguli scapulae and rhomboids and found that the vertebral border and angle of the scapula had disappeared in the mass of growth. The attachments of the deltoid and trapezius to the spine were next divided; I then found the growth extended for an inch above the upper border of the bone, but it was at this point well encapsuled. In separating the mass here, I was not able to recognise the supra-scapular artery, nor did a vessel of any size bleed. The supra- and infra-spinatus muscles did not appear to be infiltrated as they approached the shoulder-joint. I therefore cut them through about an inch from the joint, and found the section healthy in appearance, and as the growth did not in any way encroach on the glenoid cavity I proceeded to saw through the spine at its junction with the acromion, and then through what has been called the "surgical" neck of the scapula—through the depression between the supra-scapular notch and the axillary border just where the triceps is attached. This section completely detached the head with the glenoid fossa, and the shoulder-joint was not opened. The coracoid process was left attached to the head. This division of the bone brought the subscapularis into view and I divided it. The body of the bone with the mass of growth was now only attached by the teres muscles and the serratus magnus, which were finally divided. The subscapular artery was clamped before division. An enormous number of small bleeding points were tied, and often between one and two dozen forceps were on the vessels at one time, but the patient lost very little blood considering the extent of the operation. She looked pale at the conclusion of the operation, and two drachms of brandy were given hypodermically, but she did not suffer severely from shock. The pulse was then only 106. Digital pressure was

made on the subclavian artery in the posterior triangle before I began to divide the parts in the neighbourhood of the subscapular artery. Although the most scrupulous care was taken with every antiseptic detail the wound suppurated. This was almost certainly due to auto-infection, as she had a sinus leading to bare bone in the other arm; but during the healing, which was protracted, she gained flesh. There is now (July, 1897) no sign of any recurrence. The head of the bone can be rotated freely in the glenoid fossa. All movements of the forearm and hand are normal; the biceps and triceps act well. She can raise the arm a little more than to half a right angle, but only to half a right angle by means of the deltoid; beyond this the trapezius draws up the outer end of the clavicle, and with it the arm. There is no power of external rotation in the shoulder-joint. The acromion process became tilted, so that the upper surface no longer looked upward, but only backwards. The arm is a very useful one.

The mass of growth, on examination after removal, in some parts presented the appearance somewhat of fat, but was more gelatinous, and in others was white and firm. In the centre it was infiltrated with serum, and broken down into the cystic cavity which was tapped with the exploring syringe. Communicating with this cyst was a larger one, also formed by degeneration of the tumour tissue. The growth had destroyed the body of the scapula to a very large extent only portions of the bone were found as small thin plates scattered through it. The angle and vertebral border had quite disappeared. The subscapularis, and the infra-spinatus and supraspinatus muscles, except towards their insertions, were replaced by growth which was only covered by the thickened and infiltrated supra- and infra-spinatus fasciae and the layer of fascia over the subscapularis. The origins of the teres major and minor were extensively infiltrated. Microscopic sections show a tissue composed of small round cells with large areas of degeneration, in which all structure is lost, and here and there amongst the round cells a few imperfect giant cells.

That it is unnecessary to remove the whole bone for even periosteal sarcoma seems now generally agreed upon by surgeons, provided that the section of the bone is made well away from the growth, for if this is done recurrence in the lungs is more likely than recurrence in the portion of bone which is left. I operated on this principle in this case, dividing the bone and muscles everywhere thoroughly beyond the limits of the growth, but not removing the whole bone. It would have taken longer to disarticulate at the shoulder and acromio-clavicular joints and dissect out the coracoid process, and, moreover, the retention of the head and glenoid cavity with the coracoid must add considerably to the utility of the limb. One objection that has been raised to leaving part of the scapula—that the cut arteries tend to retract behind the portions of bone left and are more difficult to secure—cannot, I think, be entertained—at any rate, when only the head and coracoid process are left.

Clifton, Bristol.

SOME UNUSUAL CASES.

BY HENRY LEE, F.R.C.S. ENG.,

CONSULTING SURGEON TO ST. GEORGE'S HOSPITAL.

CASE 1.—Some years ago, whilst on a visit at West Ilsley, where there was no resident medical man, I was asked to see a boy, who, with others, had been trying a chaff-cutting machine. By some means or other he got his arm in front of the blades whilst the machine was in action. Immediately below the left armpit there was a gaping wound down to the bone. In this the open mouth of the lower extremity of the divided axillary artery could be plainly seen. The boy was faint and frightened, and there was no bleeding then to signify. Having a pocket-case with me the artery was tied and the wound closed. In this case the nerves were doubtless divided. The power of moving the arm had permanently gone.

CASE 2.—A patient who had worn a bivalved tracheotomy tube for a long time presented himself at St. George's Hospital. The shield of the tube had become detached, and the two valves had fallen into the trachea. These were removed separately by a curved pair of forceps.

CASE 3.—Soon after the introduction of the fourpenny-