

effect of irritation, or an actual extension or translation of malignant disease. How, then, can any thinking man regard it as an important indication for or against an operation.

"Happily, hospital surgeons are becoming at length practically alive to the fallacy of this distinction; and it is one of the most pleasing features of the improved condition of modern surgery, that the treatment of morbid growths by extirpation, is now the *exception*, and not, as formerly, the *rule*."

34. *Aneurism of the Axillary Artery, Ligature of the Subclavian*.—F. LE GROS CLARK, Esq., relates, in the *London Medical Gazette*, July 13, 1849, a case of axillary aneurism in a man 47 years of age, admitted into St. Thomas' Hospital in Feb. 1849. The tumour, when the patient was admitted into the hospital, was about the size of a small orange, and was situated beneath the great pectoral muscle, and close to the left clavicle. It possessed all the characteristic signs of a true aneurismal dilatation of the axillary artery in the first division of its course. It pulsated forcibly, but the throb could be entirely controlled, at the same time that the swelling was sensibly diminished in size, by pressure on the subclavian artery above the clavicle. The thrill was both audible, and perceptible to the touch. When recumbent, the aneurismal sac could also be felt in the axilla. The clavicle was raised in correspondence with the size of the tumour. Pulse 60 (he had been placed under the influence of digitalis before coming to town); heart's action quiet and healthy; no evidence of any other organic disease; and all the important functions of the body were performed naturally and regularly. He was put on a low diet for a few days, preparatory to my placing a ligature on the subclavian artery.

*Operation, Feb. 10th*.—The patient reclined on a table, being well supported by pillows, but so as to allow the left shoulder (that of the affected side) to fall. A vertical incision was first made, to the extent of an inch and a half, along the posterior border of the sterno-mastoid muscle. The integuments over the clavicle being then drawn down, a second incision was carried freely outwards, from the lower extremity of the first, as far as the anterior border of the trapezius. By this the clavicle was freely bared, and a small artery and vein which bled freely required ligatures. When the skin had been allowed to resume its natural position, I divided the dense fascia immediately above and behind the clavicle, and conducted the remainder of the operation with the handle of the scalpel, which had been sharpened for the purpose. At this stage of the manipulation, although no undue force was employed, and the cutting instrument had been thrown aside, a vein of considerable size (probably the supra-scapular, near to its termination) gave way, and poured out blood in profusion. A ligature was the only resource, and was therefore applied, at my request, by my colleague Mr. Solly, to whose prompt and able assistance I was much indebted throughout the operation. The border of the scalenus muscle was then sought for and found (nearly parallel, perhaps a little external to that of the sterno-mastoid); and the artery was at once felt pulsating upon the first rib. An attempt was first made to pass the aneurism needle from below upwards between the vein and artery; but as this was not readily effected, the direction was changed, and the needle was introduced between the lowest brachial nerve and the artery, and brought out between the latter and the vein. A strong and stout ligature of silk (of the size of small whip-cord) was carried round the artery with the needle, and readily tightened. Pulsation in the sac and artery immediately ceased, and the former became flaccid. The patient complained of loss of power and numbness of the limb, but expressed himself as relieved of the pain he had before suffered, and which arose, no doubt, from pressure on the axillary nerves.

*Vespere*.—Perfectly comfortable; perspires freely; pulse 72, without anything of excitement in it; no headache, nor pain in the arm; the limb which is enveloped in flannel, is quite warm.

He passed a quiet night, sleeping at intervals; on the following morning, the pulse had risen, but he continued to perspire abundantly; later in the day there was more febrile excitement, the pulse reaching 96, and being rather jerking; his diet was of course limited to slops; and towards evening the excitement

had subsided spontaneously, the perspiration continuing very profuse; breathing neither laboured nor painful.

On the 12th (second day after operation), the pulse was 90, and there was an angry blush about the wound, which was tender: some purulent discharge, A dose of castor oil was given, which acted freely; and a bread poultice was applied over the wound and inflamed surface, and one of the sutures (of which two had been applied to keep the triangular flap in place) was removed.

On the 3d and 4th days, he improved, and the angry appearance of the wound subsided; the discharge was tinged with blood. On the fifth day, he had some appetite, and was allowed beef-tea. I then fancied (for I was not sure, though others said they were) that I felt a feeble pulsation in the brachial artery. Sac pulseless, firm, and diminished in size; arm warm, occasionally painful; sensation not perfect; motion, even of fingers, very limited. The discharge more simply puriform; water dressing kept applied to the wound; but the skin-flap retained its position accurately, having united along the greater part of its lower border and at its angle. On the seventh day he was allowed a mutton chop. On the ninth and tenth days, the ligatures from the two veins and the small artery came away without any bleeding. Arm free from pain, and less "numbed."

On the sixteenth day, the wound was healing, but the ligature on the artery was still firm. A small roll of plaster was placed beneath it, close to the wound, and it was then put gently on the stretch and strapped down: in this way, slight traction, in a vertical direction, was kept up. On the following morning, viz., the seventeenth day, the ligature was loose in the dressings.

From this time the progress of the case continued uninterrupted. The wound gradually healed: the patient was liberated from restraint, as prudence dictated. The tumour diminished in size and became more solid, and it ceased to cause him any inconvenience. When he quitted the hospital, April 18th, his general health and strength were good. The arm of the affected side was well nourished, but had not regained its natural strength. A very feeble pulse was perceptible at the wrist. I have since heard that he remains well.

35. *Aneurism of the Axillary Artery*.—Mr. HENRY HANCOCK relates (*Lancet*, July 7, 1849) a case of large aneurism of the right axillary artery, in a man 34 years of age. The tumour was large, pulsating, and occupied the whole of the axilla, and extended under the pectoral muscles, which were pushed forwards, the clavicle being considerably raised. The tumour also extended down the upper two-thirds of the arm; he could not bring his elbow to his side; his hand was swollen and numbed, and there was great loss of power and intolerance of motion in the entire limb. The tumour, which diminished on pressure, again augmented when the pressure was removed; it also diminished when the subclavian artery was compressed; there was evident bruit de soufflet, and the aneurismal thrill could easily be detected by the touch, whilst the pulsation of the tumour was evident to the eye.

On the 26th August, 1848, Mr. Hancock placed a ligature on the subclavian artery, at the first rib, immediately external to the scalenus anticus muscle. Immediately on the ligature being tied, the pulsation in the tumour ceased. The patient did well until the 10th September, when the patient complained of pain in the tumour, which showed signs of inflammation. On the 16th September, the tumour had become very red, and a serous fluid oozed from its surface. On the 17th, the ligature came away. On the 23d, the tumour, which had suppurated, burst. The patient, after this, did well until the 4th October, when, while taking his gruel, he suddenly exclaimed that his arm had burst, and immediately dropped down, the blood flowing from the sac. In spite of the usual efforts to arrest the hemorrhage, he expired in about three quarters of an hour, on the eighteenth day after the ligature had come away, and the fortieth from the operation.

*Post-mortem examination*.—A large cavity occupied the whole of the axilla, extending under the pectoral muscles to the sternum in one direction, and down the arm nearly to the elbow in the other; the sac derived but little from the artery, the coats of which entered but slightly into its formation. The sub-