

LIGATURE OF THE ARTERIA INNOMINATA FOR ANEURISM OF THE SUBCLAVIAN ARTERY.

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THOUGH the case to which these notes refer occurred more than twenty years ago, I have thought it right to publish it, even at this late period, as a contribution to the history of operative surgery.

D. D—, aged fifty-two, a tall, well-formed, and muscular man, was admitted into the hospital, Bath, Sept. 22nd, 1856. About three years ago his attention was directed to a swelling in the axilla, about the size of a walnut. In a few weeks it increased in size, with pain extending as far as the elbow. It remained stationary until the spring of 1856, when it began to enlarge rapidly, with increasing pain, and was observed to pulsate.

On admission, a large pulsating tumour was found occupying the right axilla, and extending upwards beneath the pectoral muscles and clavicle, until it came in contact with the scalene muscles. He appeared in fair general health, though much distressed by pain and want of sleep. The pulse was about 80, and the actions of the heart and lungs quite natural. The whole tumour pulsated more or less distinctly, with an aneurismal thrill. The swelling approached so near to the scaleni as to render the application of a ligature on its cardiac side impracticable.

The ligature of the arteria innominata was decided on, after consultation with the other surgeons to the hospital, and performed under chloroform on Sept. 24th, 1856. An incision was made a little above the upper margin of the clavicle along its inner third, and carried to about an inch beyond the sterno-clavicular joint. This was met by a second incision along the inner edge of the sterno-mastoid muscle, and the flap thus formed reflected upwards and outwards, including the sternal attachment of the sterno-mastoid. The sterno-hyoid and sterno-thyroid muscles were then carefully divided close to the sternum. A vein of some size was here divided, and tied at both ends. A very little, but cautious dissection exposed the arteria innominata; an aneurismal needle was passed behind it from the outside, and the vessel tied with a hempen ligature. Pulsation at once ceased in the tumour, and in the arteries of the arm and face on the right side.

The practical difficulties of the operation were by no means great, and in a long-necked person are, no doubt, much less than in the ligature of the subclavian on the outer side of the scalenus. The quantity of blood lost was quite trifling. The limb was wrapped up in cotton-wool and blankets. He passed a fair night with an opiate, and on the next day expressed himself much relieved. There was not any pulsation in the tumour nor in the arteries of the arm, though there was a faint one in the temporal artery. Pulse 110; skin cool.

Sept. 28th.—He had a rigor in the night, and there is a slight cough, and also a blush of redness around the wound, which begins to discharge rather freely. Three sutures were removed.

Oct. 1st.—The redness is less; the pulse 108; the cough nearly gone, and he has slept fairly.

5th.—He had a second attack of rigors, followed by tension of the tumour and arm. The arm kept up a fair temperature, and the blood in the veins moved slowly towards the heart. The treatment consisted in a free use of opiates and stimulants.

8th.—The unfavourable symptoms had nearly disappeared, the wound looking healthy and suppurating moderately; but it was noticed that the ligature had an impulse communicated to it by each action of the heart.

He went on fairly well until Oct. 10th, when, on the seventeenth day after the operation, during a fit of coughing, a clot of dark colour escaped from the wound, and was followed in fifteen minutes by a stream of arterial blood, which continued to flow until his death, within an hour from the beginning of the attack.

Necropsy, fourteen hours after death.—The arteria innominata was partially cut through by the ligature, which was firmly attached to it. Its cardiac extremity was scarcely at all contracted, but was partially plugged by a firm clot, three

quarters of an inch long. The aneurismal tumour, now very much reduced in size, was filled by a firm coagulum occupying the subclavian, axillary, and upper part of the brachial artery. It was of an elongated, fusiform shape, and on the cardiac side came in contact with the scalene muscles. The carotid artery was blocked up as far as the bifurcation by a firm clot. The right subclavian vein was attached to the tumour and obliterated. The left subclavian vein was filled by a soft coagulum, and its coats thickened. The aorta was coated with many deposits of atheroma. Extending from the wound into the anterior mediastinum was a large cavity, stretching upwards in the neck under the sterno-mastoid muscle, and filled with offensive pus. The heart was healthy. The lungs were somewhat congested, and the bronchi filled with thin mucus.

Though the above case was unsuccessful, the impression it left upon my mind is, that under favourable circumstances the operation is in certain conditions justifiable and advisable, and that with the improved methods now available it may yet be followed by favourable results. Nor does it militate against that view if I add to this history the fact that more than fifty years ago a similar operation was performed in this city, followed by death on the fifth day. But in that instance, though the case was in many respects favourable, the operation was over-long delayed, and was at last undertaken somewhat hastily and unadvisedly, owing to the occurrence of a train of symptoms the true character of which was altogether misunderstood and misinterpreted. They were, in fact, the signs of an attack of acute pericarditis, which was a sufficient cause of death. The state of parts about the seat of ligature, as seen after death, was very satisfactory and promising, as there was a firm clot on the cardiac side, and no signs of suppuration in the mediastinum.

I may further state that preparations illustrative of the two cases are lodged in the museum of the United Hospital in this city.

Bath.

PHIMOSIS AS A CAUSE OF RUPTURE IN CHILDREN.

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PHIMOSIS in children is a common occurrence, and numerous ill effects can undoubtedly be attributed to it—namely, incontinence of urine, fits, and other spasmodic affections, masturbation resulting from irritation set up by retention of smegma, balanitis, and, later on in life, cancer of the penis. Professor Sayre, in his work on Diseases of Joints, devotes a chapter to phimosis as a cause of talipes and other palalytic affections. Ziemssen, in an article on "Pressure Points," alludes to the pressure of a tight prepuce on the glans as a cause of paralysis. Lately Mr. Owen has quoted some cases of eczema caused by irritation of dribbling urine, the result of a long or adherent prepuce. He also says, "In cases of umbilical and inguinal hernia it is well to look to the size of the urethral and preputial orifices."

The organ, however, that chiefly pays the penalty of this congenital imperfection is the bladder, and Mr. Bryant, in "Surgical Diseases of Children," says: "I have seen this simple condition of the penis produce every degree of irritability of the bladder, even to hæmaturia, also retention from the same cause, also priapism." Hernia, too, is frequently met with in children. Malgaigne says one in every twenty-one children has rupture. The causes of hernia generally, whether occurring in man, woman, or child, are divided into two main divisions—(a) exciting, (b) remote; the latter consisting in imperfection of the abdominal parietes themselves, the former in circumstances which exercise a more than usual compressing force on the viscera which they contain. As an exciting cause, *straining*, either violent or continuous, holds the foremost place. Now straining may be brought about in a good many different ways—coughing, crying, &c. Straining from difficulty in micturition and evacuating the contents of the bladder, I find, has been alluded to by several authors—e. g., Erichsen, Liston, Sir A. Cooper, Spence, Pott, Arnaud, Lawrence,—all of whom