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CASE OF THORACIC ANEURISM: DIFFICULTY OF DIAGNOSIS: DECEPTIVE APPEARANCE OF ARTERIAL LESION EXTERNAL TO THE CHEST: DEATH BY SYNCOPE, WITHOUT RUPTURE OF THE SAC.

By T. HOLMES, Esq., Surgical-Registrar to the Hospital.

THE subjoined case attracted a good deal of attention during the patient's stay in the hospital, and occasioned great diversity of opinion as to the real nature of the disease towards the conclusion of his life. At first, the history which he gave pointed so directly to a lesion of some vessel external to the chest, and the appearances tallied so well with that explanation, that no great doubt was entertained as to the existence of such a lesion; and the appearances were referred to the remains of an extravasation which had been nearly absorbed, the only question being whether the vessel was a vein or artery, and, in the latter case, whether the trunk or a branch of the subclavian or axillary. The latter was the opinion generally adopted. The subsidence, however, of the slight extra pulsation which existed at his admission, between the two portions of the pectoralis major muscle and in the axilla, together with the absence of any aneurismal bruit, showed that the arterial disease was only trifling, if it existed at all; and, the man's general health being perfect, he believed himself cured, and was anxious to go home; but, as some indistinct fullness still persisted in the walls of the chest on that side, and the veins continued distended, it was thought better to watch the case for some time longer. Then, for the first time, the occurrence of a slight cough called attention to the chest. Nothing was made out by the stethoscope, except the slight bronchitis which occasioned the examination. Soon afterwards, strange symptoms of syncope, occurring every now and then, showed that there was something more than this the matter in the interior of the chest; and repeated careful examinations were now made to discover its nature. The data furnished by the stethoscope, however, were insufficient for the purpose, and rather increased the obscurity of the case. The heart's sounds were natural, but low: no bruit or fremitus anywhere existed. The breathing was very shallow, almost entirely diaphragmatic; and the vesicular respiratory murmur was not heard in the left lung, but moist sounds could be heard in the bronchial tubes. The front of the chest on the left side appeared more dull to percussion than on the right. Thus the only morbid condition bearing on the case, that was distinctly made out, was pressure on the left subclavian vein; for the slight bronchitis that existed might have been, and in all probability was, merely accidental. Meanwhile, the man became rapidly worse, with frequent fits of syncope, persistent depression (increased occasionally to a state of collapse), and deficient respiration; and shortly died in one of these fits of syncope.

The case is of interest in several points of view. It furnishes a fresh illustration of the difficulty which sometimes exists in discovering the existence of thoracic aneurism. In fact, it may fairly be doubted whether, in cases like the present, the materials of a diagnosis exist: I mean in cases

which are more properly described as aneurismal dilatations than as true aneurisms, where the tumour is of a fusiform shape, at least at its ends, so as to offer no fistulous channel in which a *bruit* could be produced, and where the smoothness of the current of blood, joined to the absence of firm clot on the walls of the aneurism, prevent the formation and transmission of the aneurismal thrill. The general symptoms are also insufficient to prove the existence of aneurism, though of course they raise a strong suspicion of it: in fact, I am not aware that they have ever been logically connected with the cause; that is, the mechanism by which a dilatation of the main artery causes repeated and at length fatal fits of syncope, explained. In the case before us, there was no effused blood, nor could any rupture be detected in the walls of the aneurism. The pressure which might have been exercised by the swelling on the trachea or bronchi was not very obvious; and such a cause of death would induce asphyxia rather than syncope.

Only two ways of accounting for the cessation of the heart's action occur to me; one, from some unexplained irritation propagated along the sympathetic nerves; the other, from mechanical obstruction to the circulation, in consequence of the diseased state of the walls of the aorta, and consequent loss of their natural reaction.

We might easily imagine that the substitution of a great inelastic bag, like the sac of an aneurism, for so large a portion of the ascending aorta, would very seriously disturb the forces which circulate the blood. We know that, during the diastole of the heart, the principal agent in maintaining the circulation is the elastic force of the walls of the arteries.

If the walls of the aorta have lost their elasticity all the way from the heart to the orifice of the three large branches, may not this act as a direct obstacle to the supply of blood of those branches, and therefore into the brain? If so, the syncope would be a natural result. We may suppose that the loss of elasticity was not so complete at first, but that the aneurismal point would gradually unload itself sufficiently to allow of the heart's action being restored by the curative methods employed, but that at length the walls had so entirely lost their power of reaction, that the feeble efforts to which the heart could be so flogged on were unequal to circulate the blood through this great flaccid point. Another point of interest is the deceptive appearance of ecchymosis, which, joined to the patient's history of his case, led to the supposition of injury to one of the vessels external to the chest. That no such injury ever existed was rendered most probable, if not actually proved, by the perfectly healthy appearances of those vessels at the dissection, while the position of the aneurism, which had grown somewhat forwards in the part of the aorta covered by the left innominate vein, sufficiently accounted for the pressure on the subclavian.

CASE. E. F., aged 42 years, admitted April 9th, under the care of Mr. Johnson. He was a gentleman's servant, had always enjoyed good health, and was rather fat. Five weeks before his admission, he had been cleaning a restive horse, and soon afterwards noticed a swelling across the left shoulder, which he described as extending over the acromion, and which either then or soon after was seen to pulsate.

At the time of his admission there was considerable enlargement below the deltoid muscle on the left side; some fullness also was perceived in the axilla and below its anterior flap, but there was no defined tumour anywhere. The veins of the front of the arm and superficial veins of the chest were very turgid, and the former much enlarged,

Just below the clavicle, about its middle point, a very strong, but not heaving, pulsation was felt over a very small extent. A short, dull sound was heard with the pulse. The pulse was the same at both wrists.

Saturnine lotions were applied to the part, and the pulsation gradually diminished. He was kept under observation for a long time without any fresh symptoms. On the last day of July, it was noted that there was much less pulsation than on his admission, but still more than on the other side. He was anxious to leave the hospital, but was persuaded to stay, more especially as he was suffering from a slight cough. Next day (August 1st) he had an attack described as difficulty of breathing; the pulse failed in a remarkable manner, the lips became white, and skin cold. He was ordered a saline draught, with antimony and digitalis. Auscultation detected nothing except bronchial rale at the top of the left lung, and increased pulsation at the apex of the heart, both sounds of which were distant and low.

He had similar attacks to the above two or three times in the next three days. On the 5th of Aug. he seemed extremely depressed; the pulse was small and quick; face very pale, with clammy perspiration; he complained occasionally of pain between the shoulders and in the right armpit, and seemed sinking. During the night he had another attack of syncope, in which he died.

At the *post mortem* examination the lungs were found congested; the bronchial tubes contained much thick mucus; their lining membrane was very vascular. There was a pouched condition of the upper part of the arch of the aorta, about as large as a walnut, between the origin of the innominate artery and the left carotid, whose origin was somewhat involved. This dilated part contained some rather firm coagulum. Besides this there was a large aneurismal pouch at the posterior and upper part of the thoracic aorta, communicating by an oval even edged orifice, of the size of a florin, with the aorta. This pouch was firmly adherent to the bodies of the upper five dorsal vertebrae, and bulged obliquely into the pleural sacs, on either side of the vertebral column. It contained much loose blood and fibrinous coagulum; and on opening it the anterior surfaces of the vertebrae were found to be much corroded. The whole length of the aorta was very rough with atheroma.

The large vessels given off from the aorta were quite natural, but the fasciae and other tissues about the root of the neck on the left side, and in the neighbourhood of the subclavian artery, were thickened and hardened, and the lymphatic glands enlarged.

ROYAL FREE HOSPITAL.

IRREDUCIBLE HERNIA OF THE STOMACH (?).

By WILLIAM BRINTON, M.D., F.R.C.P., Physician to the Hospital.

THE pathology of any given organ receives few better illustrations than from the rare instances which afford us the means of contrasting the results of injury with those of disease. In the case of the nervous system, the delicacy of its texture renders these two classes of lesion far more closely parallel to each other, than is the case with organs the structure of which better enables them to resist external violence. But even in those parts of the body in which the mechanical effects of injury are least definite and calculable, and in which the peculiar connexion of the sympathetic system of nerves with the cerebro-spinal centre adds a further element of obscurity to the diagnosis, by depriving us of that information which is elsewhere afforded by the phenomena of sensation and movement:—even here, careful comparison will often throw an invaluable light on the symptomatology of the particular organ or structure. Like the rude sketches of an artist of genius, the symp-

toms are all the more impressive from the fewness and boldness of the outlines by which they are indicated. To speak less metaphorically, the previous health of the patient often renders these indications of lesion unusually valuable, by excluding all those secondary phenomena—those refractions, as we may call them, of the primary effects of the mischief—which often colour or obscure the results of idiopathic disease. Practically, indeed, there can be little objection to our summing up the chief peculiarities of these cases of mechanical injury, in a diagnostic point of view, by the statement—that they represent the minimum of the various symptoms that betray the true diseases of the corresponding organ; and hence that their careful study may sometimes materially aid us in penetrating the obscurity of these visceral maladies.

Such observations especially apply to injuries of the various parts of the intestinal canal. And they may therefore suitably introduce a brief description of an interesting case which lately came under my notice; and which, at once diagnosed by me as being probably a hernia of the stomach, offers some interesting analogies to those cases of gastric ulcer I have already reported in this JOURNAL.

CASE. G. G., a tall robust coal-heaver, aged 45 years, was engaged in his usual avocation, about four hours after a tolerably hearty dinner, on the 29th of December, 1853. He was lifting a heavy sack of coals from the ground on to the back of his work-mate; and while thus stooping forward, some one startled him extremely by touching his back. The shock made him throw back his body by a sudden and violent extension of the spine; and at this very moment, he felt something snap in the pit of his stomach. At the same time there came on a pain in the epigastrium, and this pain soon acquired a sharp stabbing character. It was attended with nausea, but not with vomiting. Half an hour afterwards he had a stool, not, to his knowledge, an unnatural one.

The next morning, after taking what seems to have been an ordinary aperient medicine, prescribed for him by his medical attendant, he began to pass a considerable quantity of blood in his stools; and for about seven or eight days, none of the evacuations were altogether free from this admixture. On the second day after the injury, he twice passed more than a pint of nearly pure blood; but at the end of the week, the quantity of blood was not more than enough to give the stools a purplish black colour.

This hæmorrhage subsequently recurred twice: once six months, once nine months, after the injury. On both occasions it lasted about a week.

The pain and nausea quite unfitting him for work, he has at various times sought for medical relief. With this view he has been largely bled; and has also been cupped five times, and blistered five times, in the epigastrium. These depletions have, he believes, weakened him extremely. But they have in no degree alleviated his symptoms.

In December 1854, he became an out-patient of the Royal Free Hospital. On examining the belly, I found a small tumour, of the size of a cherry, just on the left side of the median line, about midway between the navel and the ensiform cartilage. The convexity of the tumour could be detected by the eye, but its size and shape could only be appreciated properly by careful manipulation. It was tough, rather elastic, quite unchangeable in size by any pressure; and its deepest portion or contracted neck was tightly and immovably embraced by the sheet of tendon that here covers in the *rectus abdominis* muscle, through an aperture on the inner side of which muscle it evidently protruded. As far as one could judge, it had none of the usual soft doughy feel of omentum.

He generally suffers from more or less pain in the neighbourhood of this tumour. The exact situation of this pain usually corresponds to an arched line (P, P, Fig.), the convex centre of which is at the ensiform cartilage (X), while its bases or extremities, below (**), tolerably coincide with the meeting point of the umbilical, hypogastric, lumbar, and iliac regions of the belly. The pain is referred to this situ-