TWO CASES
OF
A N E U R I S M,
IN WHICH THERE WAS NEITHER PULSATION NOR ABNORMAL
SOUND.

By T. A. BARKER, M.D.,
PHYSICIAN TO ST. THOMAS'S HOSPITAL.

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No medical man can have been long in practice without meeting with cases in which extensive disease of the heart and large arteries had long existed, and ultimately proved fatal, without having caused any symptoms directing the attention of the patient to the seat of disease; and there must be few experienced practitioners who, when consulted for some other complaint, have not detected organic disease of the heart, or large vessels, which had previously been overlooked by some medical attendant, not because he was incapable of detecting such disease, if he had looked for it, but because the patient had spoken of no symptoms referable to disease of those parts. Bearing in mind the frequency of such oversights, even on the part of well-informed and competent medical practitioners, I should not venture to take up the time of the So-

ciety by a history of the two following cases, if they were merely instances of aneurisms which had been overlooked during life. In the first case, it is true, a large aneurism of the arch of the aorta was not discovered until after death; and, in the second, an aneurism of the renal artery was not detected until the day before death. What makes the cases worthy of record, is, not that the aneurisms existed without giving rise to prominent and characteristic symptoms, but that, when certain symptoms had arrested my attention, leading me, in the first case, to think it highly probable, and, in the second, possible, that an aneurism existed; the most careful and frequently repeated examinations did not enable me to detect either pulsation or abnormal sounds.

Case 1.—John Moseley, aged 60, a large, muscular man, generally enjoying good health, was admitted into St. Thomas's Hospital, under my care, on the 2nd of April 1844. His illness commenced about three months before; and during that time he had been troubled with shortness of breath and cough; his voice also had changed within the same period; it was sometimes weak, sometimes shrill, and almost always hoarse. According to his own account, his symptoms had not varied, except in degree, from the time when his illness commenced, to the day of his admission into the hospital. He complained principally of cough and dyspnoea; the latter, however, seldom distressed him, unless he was making some slight exertion. The cough was frequent; caused no pain, either

in the larynx or chest ; and was attended with slight frothy expectoration. The sounds of the cough and voice were such as generally accompany chronic inflammation of the larynx in an early stage. On a careful examination, however, of the fauces and larynx, neither redness, tumefaction nor tenderness could be detected. I immediately thought it possible that the cough and alteration of the voice might depend on aneurism of one of the large vessels, or on some tumour pressing upon the recurrent nerves, although the man had never complained of palpitation, or any of the ordinary symptoms of disease of the heart, or large arteries within the thorax ; and I proceeded to examine the chest again, believing that aneurism might exist.

The chest was large and well formed. With the exception of a little dulness over the upper part of the sternum, it sounded well on percussion, and healthy respiratory sounds could be heard every where. Gentle percussion over the region of the heart did not indicate any increase in the size of that organ ; but forcible percussion gave a dull sound over a larger space than usual. The heart's impulse was a little greater than natural ; but its sounds were healthy, both as regarded their nature, degree, and the space over which they could be heard. After a careful examination of the cardiac region, I came to the conclusion that the heart was slightly hypertrophied, and that it was covered by the edge of the lung more than is usually the case. The course of the aorta, and of the large arteries

above the clavicles, was examined, but no abnormal sound could be heard, and no unusual pulsation could be felt.

The upper part of the left side of the chest, anteriorly, appeared larger than the corresponding part on the right. There was considerable tumefaction along and on each side of the course of the axillary artery, from the clavicle to the axilla. Pulsation of the prominent part could be distinctly seen, and a strong thrilling pulsation was felt when the hand was applied. No defined tumour could be detected in the pulsating part; but examination by the hand gave the impression, that the artery was greatly dilated from the clavicle to the lower edge of the pectoral muscle. On applying the stethoscope over the axillary artery, immediately below the clavicle, a loud whizzing sound could be heard at the time of each pulsation, and this sound was distinct, though much fainter, even in the axilla. The detection of disease in this part of the artery naturally increased my suspicion that there might be aneurism about the arch or innominata; and I again made a careful examination of the upper part of the chest, and above the clavicles, but without discovering any new symptom. It is true that, at times, there appeared to be a very faint systolic bruit over the left subclavian, immediately before it passes under the clavicle; but, if this sound existed at all, it was very slight, was not constant, and certainly could not be heard on, or immediately above, the sternum.

This man was examined by me several times, but

the same symptoms were always observed. On the morning of the 12th, ten days after his admission, he died suddenly whilst eating his breakfast.

Post mortem examination.—No disease was found, except in the chest. The lungs were quite healthy. The heart was much hypertrophied, and the left ventricle a little dilated : the lining membrane and valves were healthy. The examination confirmed me in my opinion that the heart had been covered by the lung, except when a complete expiration had been made.

The aorta was a little dilated at its origin, and for the first two inches of its course ; a sudden and much greater dilatation then commenced, and continued to beyond the point where the left subclavian is given off. Throughout this space, the artery was at least three times its natural diameter. The dilatation, which was principally at its superior and anterior aspect, commenced and terminated abruptly. The coats of the vessel had not given way at any part, except where they were in contact with the superior portion of the sternum ; the inner surface of which was ulcerated. At this point there was a small quantity of firm old coagulum, which completed the sac. There was no other coagulum within the aneurism, except such as had formed since death. Large and numerous patches of atheromatous and earthy deposit were found from the commencement of the aorta to some distance beyond the aneurism. The innominate and left carotid were dilated at their origins. The left subclavian was also dilated a little from its commencement,

to the thyroid axis, at which point it was contracted, but it dilated again immediately below the clavicle, to at least twice its natural diameter, and continued of the same size to beyond the origin of the subscapular artery. There can be little doubt that the dilatation during life, of the axillary artery, must have been much greater than it appeared after death. The loud whizzing and bruit, heard just below the clavicle, must have been caused by the contraction of the artery just above ; but I was at a loss to account for the absence of bruit, and of any increased pulsation along the course of the aorta and large vessels in the neck. A mere inspection of the parts, without a knowledge of the care with which several examinations had been made during life, when I had a strong suspicion that aneurism existed, would have led me to suppose that bruit and pulsation must have been perceptible over the sternum and in the neck. I can, however, state most confidently, that if a surgeon had recommended an operation for the disease of the axillary artery, no symptom was observable between the 2nd and 9th of April which could have led to a suspicion of disease between that artery and the heart, except the peculiar sound of the voice, &c., already mentioned.

Case 2.—William Greatrex, ætat. 35, a labourer, was admitted into St. Thomas's Hospital on Tuesday, the 7th of January 1845. He was slightly emaciated, his countenance was expressive of anxiety and pain, and he lay in bed with his shoulders raised, his body bent and inclined towards the right side,

and his legs drawn up. All the account he gave of his illness was, that for eight months he had suffered much from pain in the loins and hips, which generally affected the right side only, and was always much worse on the right than on the left side. He had, however, with slight interruptions, been able to continue at his work until three weeks prior to his admission into the hospital.

When I first saw him, he complained of constant aching pain in the right lumbar region, extending along the course of the right lumbar muscles, to about four inches below Poupart's ligament, at the front and inner part of the thigh. The pain in the loins was constant, and generally very severe, though it sometimes remitted a little. It was slightly increased by any movements which called into action the lumbar muscles, and, as I have already stated, he assumed, and retained as much as possible, that position in bed which most relaxed those muscles on the right side.

When first examined by me, there was less pain than usual in the loins, but he complained so much of severe pain about the right hip and upper part of the right thigh, that I made a careful examination of the hip-joint. It was soon ascertained, however, that the pain must be caused by disease at a distance; for, not only was there no unnatural appearance about the joint and limb where the severe pain was seated, but pressure of the buttock around the joint, on the groin, and painful part of the thigh, caused no increase of pain, neither did the patient

complain when the leg was gently rotated, or the head of the femur was forced into the acetabulum. On the other hand, it seemed probable that the cause of all the pain must be seated in the loins, for the pain was much increased by pressure of the right lumbar region, by percussing the spines of the lumbar vertebræ, and by straightening the body, or bending it towards the left side.

In the absence of any prominent symptom to direct my diagnosis, I suggested the possibility of several diseases which might exist in connection with the symptoms just related. Disease of the spine, of the lumbar vertebræ, or of the kidney, and calculus in the kidney or ureter, all seemed possible causes of the pain. And yet some symptoms were wanting, which might have been expected if any of those diseases had existed. For instance, there was neither paralysis, nor diminished or depraved sensation in the lower part of the body or extremities, except pain in the parts already enumerated, neither was there any distortion of the spine, some of which symptoms might have been expected, if the spine or vertebræ had been diseased. The absence of any distinct febrile attack, either then or at any previous period, the healthy condition of the urine, freedom from sickness, and from violent exacerbations and sudden remissions of the pain, and the non-occurrence of pain in the cord or testis, diminished the probability of disease of the kidney, or the presence of calculus in any part of the urinary organs. Under these circumstances I was led to suppose aneu-

rism of some part of the abdominal aorta to be possible, and proceeded to examine the patient carefully, with the view of ascertaining whether that disease existed or not. On examining the abdomen with the hand, the liver was found to be much enlarged, extending almost to the anterior spinous process of the ilium on the right side, and as low as the umbilicus in the centre. No pulsation could be felt, and no abnormal sound could be heard, either by myself or others.

No disease of the lungs or heart could be detected. The examination of the back of the chest, however, was not very satisfactory, on account of the great pain caused by placing the patient in a convenient position for making such examination. This patient was seen by me on the 7th, 8th, 9th, 10th, and 11th, without any change in the symptoms being observed, except that the seat of the most severe pain was sometimes in the loins, and sometimes in the right groin and hip. On none of these occasions was the possibility of abdominal aneurism absent from my mind, and I ascertained at each visit, that no pulsation could be felt, and no abnormal sound heard.

On Monday the 13th, I was told he was much worse, and found him suffering more severely than at any previous visit. It was at once perceptible by the eye, that the right side of the abdomen was larger than at the last visit, and pulsation could be felt over a considerable space,—most forcible half way between the umbilicus and anterior spine of the

ilium. Half way between this latter point and the ribs, a loud systolic bruit could be heard, which gradually diminished, as the stethoscope was moved towards the ensiform cartilage, where it could scarcely be distinguished, and over the region of the heart no unnatural sound could be heard.

There could now be little, if any, doubt of the existence of aneurism of the abdominal aorta, or one of its branches, and I prophesied a speedy termination of the case, believing that a rupture of the sac had recently taken place. The man was not heard to move or complain during the night, and the next morning he was found dead in his bed.

The treatment was only palliative, and need not be detailed.

Post mortem.—The heart and lungs were healthy. The commencement and arch of the aorta exhibited a few opaque, yellow patches, but there was no disease sufficient to cause any impediment to the blood. At the commencement of the descending aorta there was a true aneurism, occupying about four inches of the artery. The dilatation was uniform throughout the whole calibre of the artery, which, about midway between the commencement and termination of the aneurism, was about twice its natural diameter. Absorption of the vertebræ, and intervertebral substance, had commenced opposite this part of the artery. Tearing the vessel downwards, numerous patches of yellow deposit were found, and these increased in size and thickness, in the neighbourhood of the large abdominal branches

The right renal artery was much diseased in a similar manner, and there was a false aneurism of that artery, of the size, and somewhat of the shape, of a heart. The vessel had given way, almost close to its origin at its lower part. The sac was formed by the neighbouring parts and cellular membrane. A prolongation of it extended behind the pelvis of the kidney. The sac had burst, and allowed the escape of blood to such an extent into the cellular membrane and around the kidney, as to more than double the size of the original tumour. The pressure of the aneurism had caused absorption of the anterior and right lateral parts of the bodies of three lumbar vertebræ. The liver was so much enlarged as completely to cover the aneurism, and must have prevented it being felt by the hand during life, and no pulsation could have been perceived, except what might have been communicated to the liver. The enlargement of that organ was caused, in a great measure, by venous congestion :—its structure was not altered.

Looking at the aneurism, as it existed after death, it was difficult to account for the absence, at the first five examinations, of the pulsation and bruit which were so distinct the day before death took place. On carefully examining the contents of the sac, and the blood effused around it, it appeared to me highly probable,—considering the manner in which numerous large, firm, yellowish flakes of coagula were mixed with recently clotted blood, that the sac had been completely filled by layers of

dense coagula at the time when the man was first seen, so that little, if any, fluid blood passed into the sac. If these coagula were subsequently disturbed and broken down, so as to admit a small quantity of fluid blood, and the sac then burst, the difficulty of explaining the symptoms diminishes, though it is not removed, for I have several times heard a loud bellows' sound along the course of the abdominal aorta, when there was no aneurism, but only disease of its coats, not greater than was observed in the present case. I consider, therefore, that this may fairly be regarded as a case of aneurism without abnormal sound or pulsation; unless it is thought that the enlarged liver might have prevented the pulsation being felt, until the tumour had acquired increased size by the bursting of the sac. This is not my own opinion, though it may perhaps be entertained by others.

I have already alluded to the frequent existence of aneurisms, which remain undetected until after death, solely because the medical attendant had been consulted for some other disease, and had observed no prominent symptom, leading him to suspect any affection of the heart and arteries. There have been other cases, less frequent than the above, in which, after careful and repeated examination, no symptoms of aneurism were observed; but on examination after death, some cause for the absence of such symptoms was found, either in the size, shape, or situation of the aneurism, in the mode by which it was covered by other parts, or in the nature of its

communication with the artery. In neither of the cases just related, can any such explanation be given, and the care and frequency with which the examinations were made, leave no reason to suppose that any material symptoms which could have assisted me in the diagnosis were present, and overlooked. They may therefore be regarded as aneurisms of considerable size, in situations where such disease can ordinarily be detected without difficulty, but which gave rise to none of the ordinary symptoms ; and looking at them in this light, I think they are not unimportant additions to our stores of pathological knowledge.

The histories of cases published, in order to excuse some glaring error of diagnosis, are generally, though often with great injustice, looked upon with suspicion, even when the author's character and professional reputation are so high as to leave no reason to suppose he can have been guilty of intentional concealment or perversion of facts. In such cases, it is often urged that the natural desire not to appear in fault may cause forgetfulness, or too low an estimate of symptoms which might with greater care and skill have led to a correct diagnosis. I am no doubt liable to be influenced by such circumstances, as well as others ; but in order to give greater weight to these cases, I may remark that they cannot be related for the purpose of defending my own reputation ; since they were not spoken of beyond the walls of the hospital when they occurred, and have probably been long forgotten even there.

Moreover, in both cases I expressed a strong suspicion of aneurism, from the first ; whilst in one, new symptoms arising, I was able to make a correct and positive diagnosis before death took place.