

excluded; and the case is referred to the abdominal variety of extra-uterine development. The length of time which elapsed between the abortive labour and the spontaneous effort to accomplish the exit of the fœtus through the rectum, favours this opinion; but the period loses much of its consequence when it is borne in mind that there are on record many cases of abdominal gestation of a continuance varying from a few months to fifty-six years. To the list I may add yet another case—for it doubtless was one—of which I derived the hitherto unnoticed account in the fall of 1852, from a marble slab in the ancient cemetery lying just beyond the limits of the beautiful city of Seville, Spain:—

Translation.—May she rest in peace. Passer! read and admire the wonders of nature. Doña Petronila Fernandez, a native of Seville, and widow of Don Daniel Harrington, conceived in the 26th year of her life a daughter that she was unable to bring to light. But at the completion of her 58th year she died, on the 5th February, 1833, in the Parish of St. Ann; and an appropriate operation discovered the fœtus in its natural (?) situation, dead, it is true, but flexible and uncorrupted.

ART. V.—*Remarkable Case of Aneurism of the Thoracic Aorta.* By JOHN H. PACKARD, M. D. (With four wood-cuts.)

FURMAN PIERCE, æt. 38, colored, a porter in a carpet store, became a patient at the Moyamensing Dispensary about the middle of February, 1858. He stated that he had enjoyed good health up to July, 1857, when he had a slight cough; soon after this he perceived a lump in front of his chest. He could not remember having strained himself in any way whatever.

When I first saw him, at the time above mentioned, the lump had attained the size of a pretty large fœtal head; it was seated at the upper part of the sternum, somewhat to the right of the median line. An eccentric or expansive pulsation was very evident all over it, but there was no bellows murmur perceptible on auscultation, nor anything like a thrill; the two sounds of the heart were transmitted, deepened in pitch, and, as it were, renewed or intensified in the tumour. The clavicles seemed to disappear at about an inch and a half from their sternal extremities, but the sterno-cleido-mastoid muscle could be traced quite distinctly at each side, passing over the upper part of the tumour as if to its point of insertion. There was no difference between the pulses in the two carotids; that in the right radial was a little feebler than that in the left, but this peculiarity was not permanent. The head was entirely unaffected; there was no numbness or œdema of the right arm, but some pain; there was a good deal of pain shifting between the shoulders and

the tumour itself. There was some stridulous cough, but no difficulty of swallowing; the patient's appetite and general health were good, and he was still pursuing his occupation.

The heart seemed, on examination, to be entirely healthy.

The treatment adopted was of course merely palliative; he was ordered a mixture of liq. morph. sulph. and sp. eth. co., to allay the cough, and tr. acon. rad. gtt. ij, t. d. to moderate the heart's action. A liniment containing aconite was also directed, to soothe the pain and throbbing in the tumour; it was applied only around the borders of the swelling, lest the skin should be irritated, and its thinning hastened. By these means the cough was entirely subdued, his nights were rendered comfortable, and perhaps the increase of the tumour was slightly delayed.

He continued to discharge his duties as porter (which he said were not very laborious) until the early part of March; and it was not till about the first of April that he was obliged to remain in his room; he was not absolutely confined to his bed on the very last day of his life.

The sketches from which the annexed wood cuts were taken were made about the 30th of March, when the swelling was by no means so large as it subsequently became; but it was even then of very unusual size; the side view (Fig. 2) especially shows its great projection forwards.

The increase in the size of the swelling was extremely rapid during the latter stages of the disease; on the 15th of April its semi-circumference was carefully measured, and found to be eight and a half inches transversely, and the same from above downwards. On the 26th, only eleven days subsequently, an augmentation of one inch each way had occurred; at this time, there appeared also a slight discoloration, with some pain, at the most prominent part of the tumour. This discoloration extended, becoming more and more marked; the cuticle was separated at its central part, and seemed to be softened by bloody oozing. On the 2d of May I found the swelling to measure eleven inches transversely, and ten and a quarter from above downwards, in semi-circumference. His appearance now can hardly be imagined; this enormous tumour pulsated strongly with every beat of his heart, and it seemed as if the separation of a slough of considerable size was to be momentarily expected. Still, his appetite was good, he was not greatly emaciated, and his mind was perfectly clear and tranquil. By the advice of Dr. Norris, who kindly saw the patient with me several times, I had directed a plaster composed of equal parts of empl. saponis and ext. conii, to be kept constantly at hand, to be at once applied if the dreaded rupture should take place.

May 6. At about 10 P. M. an opening which would admit the end of the little finger occurred at the upper part of the discoloured spot. The plaster was instantly put on, and the amount of blood lost was but trifling. He bled again slightly during the night. His third and last hemorrhage, at 6 A. M., was perfectly uncontrollable, and he died instantly.

With the assistance of Dr. Brinton, I made the

Fig. 2.

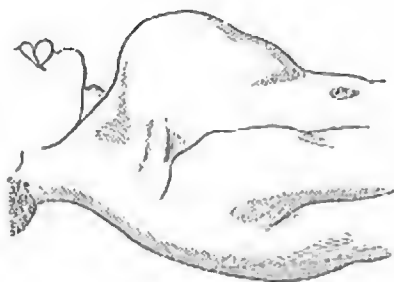
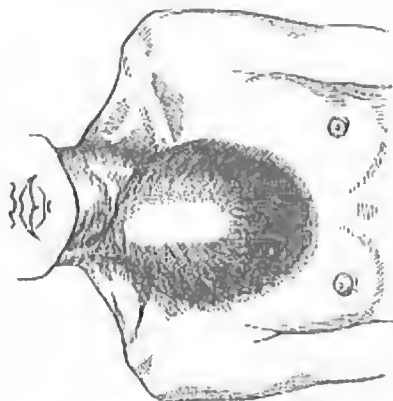


Fig. 1.



Autopsy, 10½ hours after death. Tumour only examined, and that under unfavourable circumstances.

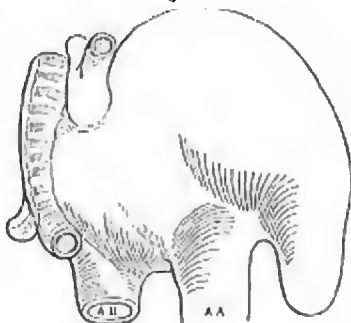
The anterior wall of the aneurismal sac, as well as the skin lying over it, was extremely thin; the opening through which the fatal hemorrhage had occurred was filled up by a fibrinous clot. The separation of the skin from the sac was not very difficult, except where the sterno-clavido-mastoid muscles had been traceable; these latter seemed to have been converted at this part into firm fibrous tissue, but, as will be further stated, their bony connections were destroyed.

The sac, being opened, was found to contain an enormous clot, very firm at the posterior and lower portions, but much less so above and in front, its consistence gradually diminishing, and its red colour deepening, towards the external orifice, which, as before stated, was plugged up by the only firm clot of recent formation, found in connection with the sac.

On introducing my hand into the sac, I felt, to my amazement, several pieces of roughened bone *within its cavity*. Two of these, evidently remnants of the sternum, lay free, surrounded and supported by half-coagulated blood; they were irregular in shape, bare, and eroded, as if by a solvent action of the blood; the line of separation between them was irregular, oblique, and much like that of a fracture. The end of the right clavicle, and the upper two ribs on the same side, in a similar condition, projected through the wall of the sac; both sterno-clavicular articulations were absorbed. Above the second rib the sternum was entirely gone, except a slender strip which had formed its border on the left side; the inner edge of this strip was bevelled off internally by absorption. The outer and front surface of the first rib on the right side was laid bare and slightly hollowed out by the pressure of the aneurismal sac. It would seem that the dilatation had gone on so rapidly that the bones, so to speak, were not absorbed quickly enough, and the walls of the sac, even in the act of giving way to them, formed adhesions around them. I must confess, however, that I am at a loss to explain satisfactorily the mode in which the sternum was disposed of. Having once broken through the anterior wall of the thorax, the sac enlarged by forming a sort of pouch, passing downwards in front of the sternum, as may be seen in the accompanying diagram.

The vessel involved was the aorta, from about an inch above its origin to a corresponding point in its

Fig. 3.



descending portion; the innominate artery was somewhat increased in calibre also, while its length was diminished. The descending aorta was thickly studded with atheromatous deposits. The trachea was flattened at its lower part, and pushed over to the left side of the vertebral column, which remained unaffected. The lungs were perfectly healthy, but had been crowded downwards, and bands of adhesion of considerable length passed upwards from their apices to the sides of the aneurismal sac.

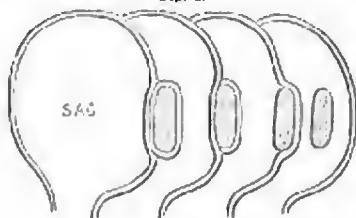
Of the several unusual features presented by this case, the most extraordinary and inexplicable is the condition of the bones. I have examined a great many works, surgical, medical, and pathological, books of reference, text-books and monographs, but in none of them is any allusion made to the possibility even of such an occurrence as the perforation of an aneurismal sac by one or more bones. Nélaton¹ says that in some cases, which are "rare, very rare indeed," the bones curve instead of being absorbed. Broca² speaks of the large nervous trunks as being sometimes found traversing the cavity of the sac, and cites a case in point, observed by Rognetta. But here was a piece of bone lying within the sac; there was no trace of any connection between it and any part of the wall of the cavity, nor any clue to the process by which that wall had been penetrated; yet it is perfectly certain that the bone was originally outside of it. I would suggest with some diffidence a theory which is more satisfactory to my own mind than any which has hitherto presented itself, viz., that the periosteum covering the inner surface of the upper piece of the sternum, was absorbed beneath the pressure of the tumour, adhesions meanwhile forming between the sac and the periosteum around the edges of the bone; then the anterior wall of the sac itself being broken down, the bone was loosened from its anterior periosteal layer by the insinuation of the contents of the sac between them, and dropped into the cavity, the anterior wall of which thenceforth consisted of two layers—skin and periosteum, the latter becoming lined by a sort of serous membrane, perhaps by the organization of coagula.³

¹ *Elémens de Pathologie Chirurgicale*, tome i. p. 449.

² *Des Anévrysmes et de leur Traitement*, p. 65.

³ The idea may perhaps be made clearer by the annexed diagram.

Fig. 4.



All this must have occurred at quite an early stage of the disease, probably before

The mode of termination of this case was also somewhat uncommon, aneurisms of the thoracic aorta generally opening internally. In Mr. Crisp's¹ tables there are 148 instances given of aneurisms of the thoracic aorta; of these, 70 formed communications with the trachea, œsophagus, pericardium, pleura, or pulmonary artery, and only 9 burst through the skin. Broca² also speaks of external openings as of very rare occurrence in thoracic aneurisms.

The absence of symptoms arising from pressure on nerves or bloodvessels, on the œsophagus, or on the trachea (for there was no loss of voice, and the cough was very tractable), is somewhat remarkable, considering the very great size of the tumour; and we can ascribe this want of consecutive symptoms only to the continual anterior tendency shown in its development.

Another singular circumstance, which surprised all those who examined this case before death, was the entire absence of any bellows murmur, as well as of aneurismal thrill, notwithstanding the very strong pulsation existing in the tumour, and the impression produced that its liquid contents were very near the surface. This was accounted for after death by the nature of the clots actually forming the channel through which the blood flowed, these being soft and creamy or muddy in consistence, so as rather to deaden sound than otherwise, and thickening gradually towards the real wall of the sac. Broca³ says the *bruit de souffle* is rarely absent; but he elsewhere⁴ states that it may be diminished, or even disappear entirely, in some aneurisms which are partially solidified by the deposition of fibrinous clots. Crisp⁵ quotes Laennec as saying that the only pathognomonic sign of thoracic aneurism is the external tumour.

Before concluding this paper, it may be well to call attention to the great utility of the hemlock plaster in delaying the fatal event of the case, securing as it did a respite of eight hours for the unfortunate patient; the vast importance which might in some instances attach to even a much shorter time may be very readily imagined. Dr. Norris, to whom I am indebted for very valuable advice and assistance in this and other cases, mentioned to me that it procured a like advantage for a patient of Dr. Pease's, an aneurism for which the common iliac had been tied by Dr. P. having recurred, and ultimately destroying life by opening through the skin.

The patient himself had noticed any swelling whatever; and it may be that the cough, alluded to as having preceded the appearance of the tumour externally, was a mere symptom, due to a pressure which was relieved as soon as, by the completion of the process now supposed, a new direction was given to the swelling. Much light would be thrown upon a case of this kind by the observation of analogous instances at less advanced periods; but as this one stands by itself, a sort of enigma, a purely argumentative process must be employed in tracing out the successive steps of its development.

¹ On the Structure, Diseases and Injuries of the Bloodvessels. By Edward Crisp. London, 1847.

² Op. cit., p. 67.

³ Op. cit., p. 61.

⁴ Op. cit., p. 89.

⁵ Op. cit., p. 128.