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NOTICES

OF THE

ABNORMALITIES OF SEROUS MEMBRANES.

BY

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IN putting on record a description of some abnormalities which I have recently found in the pericardium and peritoneum, I am actuated by the consideration that in one case there existed a peculiarity of the arrangement of the peritoneum, which does not seem to have been hitherto observed, and in the other two instances the peculiarities observed confirm facts already noticed by others.

CASE I.—*Congenital Absence of the Pericardium.*—A. P., aged twenty-nine, presented an extremely anemic condition. A year before I saw her the right mamma had been removed for malignant disease, at St. Mary's Hospital, Manchester. For some months after her recovery from the operation she acted as a barmaid, and enjoyed perfect health. About seven months after the operation she began to find that on any unusual amount of exertion she became breathless, and this affection increased so rapidly that in two months more she was entirely disqualified for work. Her condition, when I saw her, indicated serious disease; and from the physical signs, I diagnosed mitral constriction, with perfect inelasticity of the valvular orifice.^a The question occurred,

^a Vide Med. Press and Circular, July, 1868.

Might it be malignant disease? and I was inclined to believe that it was. The fatal issue occurred three weeks after she came under my care, and *post mortem* examination showed that I was right as to the condition of the valve, but wrong as to the variety of the disease. The valve admitted the middle finger, and both flaps were much ulcerated on the upper surface. The disease was atheromatous deposit, extending completely round the valve, and of a very soft consistence, owing this probably to its rapid deposition. Besides this disease two peculiarities, of a congenital character, were found; but, to my regret, they must be recorded imperfectly, as I was prevented by the friends of the patient from examining anything but the heart, and from removing any part. That which will require shortest mention is the fact that the aortic valves consisted of only two pouches, quite healthy, and with the *corpora arantii* but faintly marked, and a coronary artery arising from each *sinus*. This peculiarity is described by Meckel, Cruveilhier, and Henle, as being very rare; variation in the number of pouches being much more common in the pulmonary valves than in the aortic, and increase of the number to four being commoner than its reduction to two. There existed, also, the somewhat rare condition of absence of the pericardium. On removing the sternum and costal cartilages no peculiarity was apparent, as I had not opened into either pleura, and a mass of loose connective tissue seemed, as usual, to occupy the anterior mediastinum. When I endeavoured to pinch up the pericardium, that I might make an incision into it, I found that I could only get a hold of the substance of the heart. I was under the impression that I had made a mistake in my diagnosis, and had to do with a case of pericarditis and consequent adhesion. On making an incision, almost in the middle line, I came upon a nerve, which a slight dissection showed me to be the left phrenic. I then slit open the left pleura and at once exposed the lung and the left side of the heart. On opening the right pleura, I exposed the right auricle and its appendage. I was a little puzzled at first, but soon came to the conclusion that it was a condition, the occurrence of which I had not before been aware of, viz., absence of the pericardium. On the left side the parietal pleura was continued from the vessels downwards, to about an inch from the apex, and forwards as far as the anterior coronary artery, thence to the cartilages. On the right side its relation was much more limited, being confined entirely to the auricle. This abnormality, although

very rare, has been, at various times, noticed. A summary of the cases observed, prior to 1840, is given in an excellent paper by Mr. Curling, in the XXI. Vol. of the *Transactions of the Medico-Chirurgical Society of London*, where he describes a case with great accuracy; and I am glad to find that the few points which I observed in the above case substantially corroborates the appearances found by Mr. Curling.

CASE II.—*Congenital Deficiency of all the Folds of the Peritoneum.*
The following peculiarities were observed in the case of a prisoner in the West Riding House of Correction on April 28, 1868, who had died of acute leucocytosis, under the charge of my deeply lamented friend the late Mr. Milner, surgeon to that Institution. The *post mortem* was made by us in concert, and the notes, which were most carefully made, were transcribed in the Hospital case book. The pathological appearances of the case do not at all bear on the peculiarities about to be narrated, and need not be mentioned. On opening the abdomen by the usual incision, we were struck by the remarkable appearance of the intestines. They presented an exactly similar appearance to that seen when the convolutions of the brain, with the arachnoid over them, are exposed by laying open the *dura mater*. The peritoneum was perfectly transparent, free from the slightest appearance of inflammatory action, and, instead of being in relation to the whole circumference of the walls of the small intestines, and dipping down to the posterior abdominal wall to form mesenteries, it passed from one coil to another, being in relation to about a third only of the circumference, and disposed exactly as the arachnoid is to the sulci of the brain. It formed a mesentery at no point of the small intestine, nor, indeed, elsewhere. There was no appearance of the great omentum. Tracing the peritoneum, from the umbilicus upwards, I found that it left the parietes at the level of the edge of the liver, to be continued at once over the lower surface of that organ, as far as the portal fissure; and behind the vessels and duct, entering and emerging there, it turned as usual, and formed Winslow's foramen. The upper surface of the liver, and its posterior edge, had no relation whatever to the peritoneum, but were attached immediately to the diaphragm by the ordinary loose sub-peritoneal connective tissue; while the only ligament the organ had was an unusual anterior-marginal single layer of membrane, in which, however, was embedded the usual round ligament. The lesser cavity of the

sac was extremely limited in extent, and its capacity was not greater than would contain an orange. At the lower and posterior part it had relation to the head of the pancreas to the extent of about a square inch, and a still slighter connexion with the duodenum; superiorly it had a limited relation to the under surface of the liver—anteriorly it covered about one-third of the posterior wall of the stomach. From the anterior wall of the stomach the peritoneum proceeded directly to the anterior wall of the transverse colon, the gastro-colic omentum being represented by about half-an-inch of a single layer of membrane. From the colon it passed to the small intestines, being related to them as before described, and left them again to be related to the anterior abdominal wall, three inches above the fundus of the bladder. The diaphragm at no point was in actual contact with the peritoneum. There was no gastro-splenic omentum, as the spleen was entirely divested of serous covering, and lay at some distance from the peritoneum, as also did the kidneys and ureters. Neither the cecum, ascending colon, descending colon, nor sigmoid flexure had any serous covering. The bladder had no relation to the peritoneum. The testicles were both in the scrotum, and had the usual tunica originalis.

In correspondence with my friend and former teacher, Prof. Cleland, on this case, he has kindly expressed his opinion regarding it as follows:—"I have thought over this very interesting case, and think that probably you had an instance of a similar sequence of events to that which I pointed out as happening, normally, in connexion with the descending colon, where a viscus, originally perfectly invested, comes to be only partially so on account of the peritoneum not being extended throughout its extent proportionally with the growth of the other parts. Or, to put it otherwise, you have an instance of the same sort of thing, as I suppose to have occurred in the case of the colon, in my abnormality" (referring to an interesting communication in the May number of "*Humphrey and Turner's Journal of Anatomy and Physiology*," to which I shall more particularly allude afterwards), "viz., viscera enlarging and becoming coiled within a fold of peritoneum, without the peritoneum retaining its hold of the visceral surface so intimately as to be pulled out along with it and follow its convolutions. How far you may see your way to concur in this view I cannot say; but, whatever the explanation, the case seems to have been a most curious and interesting one."

Apart from the fact that Dr. Cleland is one of our greatest authorities on questions of development, more especially of abdominal organs, his explanation is so evidently the correct one, that I have no hesitation whatever in accepting it. The only question which remains is, I think, that of the period at which the arrest of development took place. One fact, the existence of the tunica vaginalis, settles a period before which it did not happen. The perfect regularity with which organs were stripped in proportion as they were distant from the centre of the peritoneal sac, and the extent to which this was accomplished, seem to me to point to a very late fetal age, or, more probably, advanced infancy, as the period at which the abnormality originated, and in this Dr. Cleland agrees with me.

I may state that no indication of other abnormality existed in the body.

CASE III.—As bearing on Professor Cleland's communication on arrest of development of the meso-colon, I may briefly narrate a case where I met what was doubtless the same abnormality in a much less prominent form. In his case the arrest of development had either taken place at such an early period, or was so complete, that it extended throughout the meso-colon, causing the colon to make a double flexure on itself, and the aborted mesentery to form a ring which had descended over the small intestines, or through which they passed, so that they were lodged in a third and abnormal sac of peritoneum. In my case, which happened to be one in which there was a dispute whether typhoid fever existed, and in which, therefore, the cecum had to be specially examined, the following was the condition:—There was a distinct meso-colon coming close up to the cecum, the latter making a slight turn upwards, and to the left. At the lower part of this bend, the peritoneum folded to form the dexter pillar of a ring, the sinister pillar of which was formed similarly by the meso-ileum. Into this ring I could introduce four fingers, and the cavity bounded by it was of a capacity sufficient to contain an orange. In it were the vermiform appendix, part of the cecum, and about two inches of the ileum, all destitute of mesentery, but invested, on one side, by serous membrane. The explanation of it is evidently that the part of the ascending colon, immediately above the cecum, continued to grow in length after the vermiform appendix and caput cecum coli had got fixed in position. The pouch would have been everted

by pulling down the vermiform appendix. To account for the pouch, we must suppose that the commencement of the ascending colon, in passing on to a lower position than the cecum, had carried with it the small extent of loose peritoneum then lying on its left, between it and the ileum; thus dragging a portion of the ileum down, and covering it and the cecum with a hood.



