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ON

DILATATION OF THE LACTEALS.

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THE peculiar lesion which I propose to describe is one of so rare occurrence that I do not find it mentioned in any English work on morbid anatomy, though it was referred to by Rokitansky in his last edition. I shall first describe the case in which it occurred, and then explain my view of its nature.

S. M., a man æt. 60, was examined August 28, 1863. The body was very œdematous, the heart was hypertrophied and fatty, the aortic valves much diseased, and covered with vegetations. The auriculo-ventricular orifices were dilated, and the valves diseased.

The coronary arteries were tortuous and atheromatous. The aorta contained some calcareous plates and patches of atheroma.

The pleuræ were adherent—the adhesions very œdematous. The lungs were emphysematous in front, œdematous posteriorly, and contained some patches of pulmonary apoplexy. The liver was much congested, and somewhat cirrhotic—the hepatic venous radicals were dilated:—it weighed 52 oz. The capsule of the spleen was thickened. The right kidney was natural, excepting an old cicatrix. The left contained several cysts, none of large size. The two organs weighed 16 oz. The stomach was dilated. The muscular layer was hypertrophied in the neighbourhood of the pylorus. The mucous membrane was extremely congested, and in some parts ecchymosed. Towards the cardiac end there were patches of a yellowish colour, perhaps results of old extravasation. The intestine throughout its whole extent was congested. In many parts the small veins formed little prominences above the surface. There was a polypus in the ascending colon. Scattered throughout the whole small intestine was a number of whitish-yellow patches, varying in size from that of a pin-head to that of a small bean. Some were granular on the surface, and evidently connected with

the mucous membrane; others were smooth, rounded, and lobulated like little fatty tumours, and evidently lay in the submucous layer, for by a little careful dissection they could be separated from the mucous membrane on the one side, and from the muscular layer on the other; a third set, again, much less frequent, consisted of a combination of the other two. On microscopic examination, those of the first kind were found to be made up of groups of villi greatly distended, as in the process of digestion—they were dark and opaque. On tearing them, a milk-like fluid escaped, which presented microscopically the characters of milk or chyle. The villus then collapsed, and there was no appearance of the bloodvessels having been distended; and indeed it was obvious that the whole enlargements depended upon the presence of the milk-like fluid. As this is the matter naturally present in the lacteals during digestion, and as these take origin in the villi, we seem to be warranted in concluding that this class of patches results from the retention of chyle in the blind extremities of the lacteal vessels of a number of adjacent villi. The whitish-yellow colour arose from the chyle shining through the coats of the villus, and the granular appearance of the surface from the patch being composed of numerous villi. Those of the second kind resembled small fatty tumours, and were situated between the mucous and muscular coats. Some consisted of a single lobule, others of several. On pricking any of them, a milk-like fluid, closely corresponding to that above described, but containing in addition cell-like aggregations of fatty granules, flowed out, and the walls of the particular lobule collapsed. I could not satisfy myself as to the structures of the bounding walls; but some of the patches presented peculiar elongations from the main mass, like tails proceeding from the body, which evidently consisted of some tubular structure. But these did not pass into bloodvessels, nor did they seem to bear any special relation to them, and were therefore to be regarded as portions of lacteal vessels. On the whole, from the character of the contained fluid, the structure and appearances, and the observations previously made, we may conclude that these patches consisted of dilatation of the small lacteal vessels.

Only one theory as to the origin of this lesion occurs to me—namely, that the extreme backward pressure upon the blood, which arose from the disease of the heart and lungs and the general dropsy, acted upon the lymphatic vessels also in some unexplained way, and led to their distention at some points. This view is in accordance with all the facts observed, the chief of which were recapitulated in the account of the examination of the body. I regret that I neglected to ascertain the condition of the thoracic duct, the large lacteal vessels, and the mesenteric glands. It arose from my not having noticed the patches till the intestines were removed, nor suspected their nature until it was too late to investigate the other points.

The only case which I find closely corresponding to this is one recorded by Rokitansky in the last edition of his Pathological Anatomy,[1] of which case I subjoin an abstract.

In a nun, 62 years of age, with œdema of subcutaneous cellular tissue, and very considerable effusion of a milk-like fluid, in both pleural and the peritoneal cavities, with dilatation and hypertrophy of the heart, thickening and shortening of the mitral valves, with thickening of the mucous membrane of the stomach in the pyloric half, and the walls of the intestine white and swollen, the subpleural lymphatic vessels were distended, still more the chyle vessels and the thoracic duct. They presented, from the bowel to the first series of lymphatic glands, knot-like dilatations, full of a white soapy or greasy looking matter, which became diffused in water. It consisted of fatty granules, some of them agglomerated into cell-like bodies, crystals of margarin and some apparently nucleated cells. In individual places the mass was more yellow, and adhered to the walls of the vessels. In the lymphatic glands there were similar small deposits, and in the thoracic duct there were some dilatations.[2]

Such is the only case in which I find a closely corresponding lesion described, but there are several cases on record in which a dilatation existed in other parts of the lymphatic system. Carswell and Breschet both describe one in which there was an enormous congenital dilatation of the lymphatics from both groins upwards.[3] H. Lebert, in his work on the diseases of the lymphatic vessels and glands,[4] mentions a number of cases of dilatations of the lymphatic vessels from the works of Baillie, Sœmmering, Cruveillhier, and others, and gives one or two at length. One originally recorded by Dr Fetzer of Stuttgart, was that of a young girl in whom there was a dilatation of the lymphatic vessels of the abdominal wall from the umbilicus to the spinal column on one side. There were about eighteen little tumours which, from time to time, became painful, and at once relieved themselves and demonstrated their nature by discharging a milk-like fluid.[5] In a case recorded by Demarquay, there were on the left thigh groups of transparent vesicles, which were ascertained to consist of varicose lymphatics. The vesicles ultimately burst and discharged a large quantity of lymph.[6] Lebert himself observed a case, in Schönlein's Clinique at Zurich, in 1833. I quote his account of it:—"In the summer of that year I saw a young man, twenty-one years of age, in whom, from time to time, there ap-

[1] Rokitansky's pathologische Anatomie, band ii. s. 388.

[2] Dr Craigie informs me that he, on one or two occasions, during the cholera epidemic, found the lacteal vessels distended with a whitish fluid, in bodies of those who had died from the disease.

[3] Carswell's Pathological Anatomy Hypertrophy, Plate iii.

[4] Virchow's Handbuch der speziellen Pathologie und Therapie, band v. Abtheilung ii.

[5] Lebert, op. cit., p. 134.

[6] Lebert, op. cit., p. 134.

peared on the thigh and scrotum little transparent vesicles, which filled and then burst, discharging at one time a whey-like at others a milk-like fluid. The skin of the scrotum was in general hypertrophic. The fluid was afterwards examined and found to contain milk-sugar, but I am now decidedly of opinion that the case was one of lymphatic varices and dilatations; because, very recently, Guevenne found sugar in the lymph of a patient who suffered from a flow of lymph."[1] Lebert also refers to a case recorded by Zamini, in which the chemical analysis was made by Canobio, in Genoa, of a woman who had a so-called flow of milk from the thigh, and which he refers to a similar dilatation of the lymphatics.[2]

I had recently an opportunity of seeing a case similar to the two last, which is under the care of my friend Dr Andrew B. Buchanan of Glasgow, in which there has for long existed an abundant milk-like discharge, an account of which will shortly be published.

Virchow has described a case in which enlargement of the tongue was proved to be dependent, to a great extent, on dilatation of the lymphatic vessels.[3]

Such are the chief recorded instances of dilatation of the lymphatic vessels, so far as I have been able to ascertain. I have referred to most of the cases I have found described, although I am by no means satisfied that all of them are correctly included under this title. Of the nature of Rokitansky's case, and that which I have reported, there can be no reasonable doubt.

Whether any symptoms are associated with the lesion I have described, we have no means of knowing at present. Future observation may throw light upon it.

[1] Op. cit. [2] Op. cit.
[3] Archiv fur pathologische Anatomie, etc., band vii. s. 126.

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Fig. I.

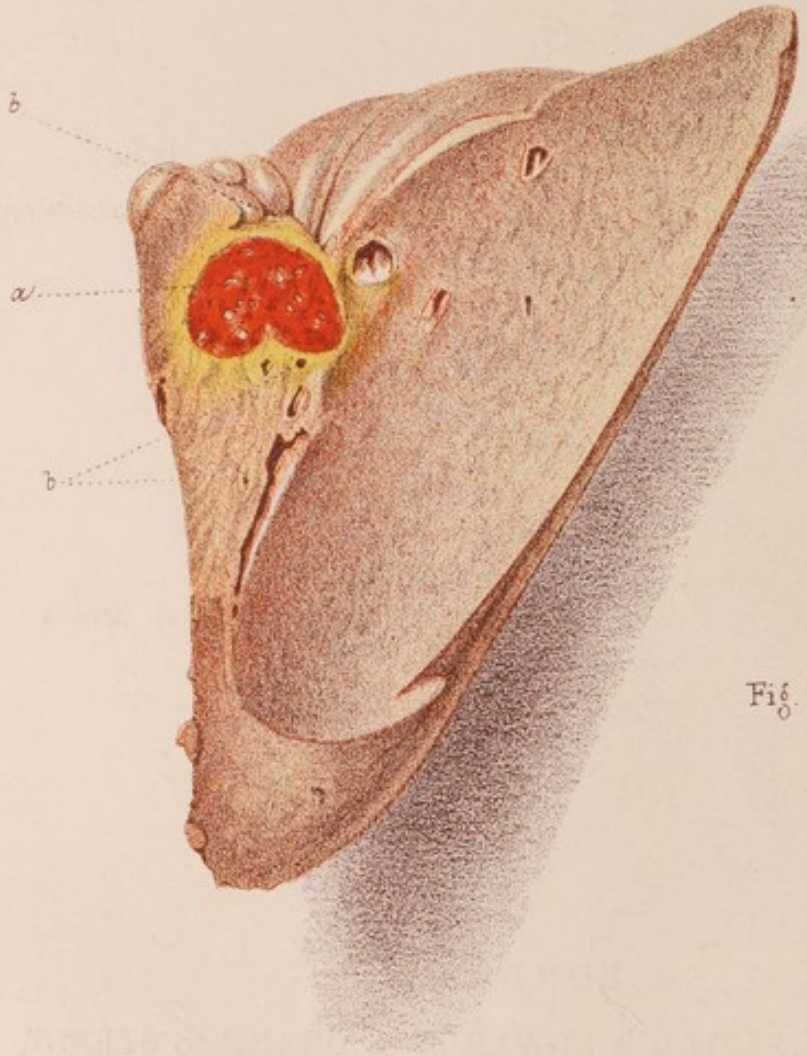

Fig. II.