ON A
PARTICULAR DERANGEMENT
OF THE
STRUCTURE OF THE SPLEEN,

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COMMUNICATED (WITH SOME INTRODUCTORY REMARKS AND COMMENTS)

By THOMAS HODGKIN, M.D.

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IN 1832 I presented to this Society a short paper, in which I described some pathological appearances which I had noticed in the spleen, and which, I believed, had not been previously made the subject of observation. One of these consisted in a partial, well-defined alteration of texture, which I was induced to attribute to the extravasation of blood caused by local injury. When Professor Rokitanski was in this country, about three years ago, I took an opportunity of bringing some specimens, exhibiting this derangement, under his inspection. He immediately recognized it as one which had been the subject of his own investigation; but, instead of adopting my view as to its local origin, he regarded it as one of the effects of endocarditis, and as produced by the poisoned condition of the blood. Though it was easy to understand that an altered condition of the blood might affect the general structure of the spleen, producing the softened consistence and lilac colour which we find in many subjects who have died of fever, I confess that I was sceptical as to the necessary connection between the altered condition of the blood, and the partial, circumscribed, permanent degeneration, nearly uniform in situation, which is seen in the cases referred to. At the same time I could not doubt the accu-

raciness of the Professor's facts, which indicated a remarkable coincidence, even if they did not furnish a satisfactory explanation.

I have recently received a letter from my friend Dr. Jackson, of Boston, in the United States, in which communication he gives his own observations on this derangement.

Dr. Jackson is a most laborious and practised pathological anatomist; and the cases which he has adduced, afford so strong a corroboration of the coincidence pointed out by the Professor of Vienna, that it affords me pleasure to lay them before this Society, and thereby supply one of the deficiencies of my former paper. I do so in the Doctor's own words.

“ I have met with a series of cases of the disease described in your Catalogue of the Museum at Guy's Hospital as a partial and circumscribed degeneration of the spleen. There are some appearances, however, in the cases which I have observed, which will, I think, either throw some light on the nature of the disease, or show it to be something quite peculiar. The whole number of cases is nine. The disease is found in regular masses, varying from one quarter of an inch to one inch in diameter; and generally, several were found in the same organ. These were situated in the edge, or very near to it, and not upon the two broad faces of the organ; and they appeared to extend from the surface into the substance of the organ, being never, I believe, found in the substance without coming to the surface. They were perfectly defined, and often surrounded by a little loose, cellular tissue, but were never encysted. The colour was the striking characteristic. It was always more or less yellow, except in one case, where it was evidently stained with blood; sometimes a faint yellow, but more generally bright. In one case it is described as an ‘ochre;’ in the second, as a ‘gamboge,’ (i. e. gamboge when moistened by water); and, in a third, as being of a bright golden yellow colour, contrasting strongly and very beautifully with the deep red colour of the rest of the organ. Sometimes, in the less perfected specimens, there

was an intermixture of red. The masses are perfectly opaque, the cut surface is smooth, and generally they are of the consistence of fibrin; blood-vessels were distinct in some specimens, but generally they could not be seen. The surface of the organ corresponding to these masses was opaque, the yellow colour showing through, more or less, from beneath; but, in one case, the disease was only marked externally by a deep red colour; the whole surface was sometimes depressed, and sometimes not at all so, but more frequently there was a narrow depression around the limits of the disease; old peritoneal adhesions were sometimes found in this part. The spleen itself was generally noted as of the usual size. In one case it was small; in one, rather large; in another (the patient had formerly had intermittent fever), it was so much enlarged as to weigh 1 lb. 6½ oz. avoirdupois. Nothing was ever seen in the organ like tubercular or malignant disease, nor was there any trace of pus either in or out of the diseased masses. In one case only was there anything like acute inflammation (and perhaps this was not), the substance of the organ being, in three different places, firm, quite friable, and of a dark red colour, as compared with the rest of the organ. All of the patients were adults except one, who was a lad ten years of age. You have observed the disease described by yourself, principally, if not exclusively, in males;* but, in my cases, females were the subjects, and in a large proportion. You are inclined to regard it as the effect of external injury, and the same opinion I find expressed in your paper in the *Medico-Chirurgical Transactions* (vol. xvii. p. 99); but, in my cases, no allusion is made to any such explanation, the fact being overlooked, if it existed, as I was not aware, at the time of your observations. In five of the cases it is expressly stated that there were no tubercles in the lungs,—an interesting point, as bearing on the nature of the disease of the spleen;

* The occurrence of the derangement in males was noticed in the Catalogue of the Museum at Guy's. Amongst the other cases related subsequently in the *Transactions of the Medico-Chirurgical Society*, some are instances presented by females.—T. H.

in two, who died of anything but pulmonary complaint, the fact is not noticed; in one, there existed a few latent tubercles; and one patient only died of phthisis. Most of the patients died of complicated organic disease; three of organic disease of the brain; one of cancer of the uterus; one of cerebral affection after scarlatina. One thing, however, was common to every one of the nine, whatever was the disease that caused death,—and that was, an organic disease of the heart; and, in five of the nine, there were found vegetations upon the valves; in one of these last there was fibrin adhering to the inner surface of the left auricle, and becoming organized; in another (not one of the five), there was, in the appendix of the right auricle, a mass of fibrin as large as the top of the thumb, and completely infiltrated with pus, as some would say; in one of the five cases of vegetations of the valves, there was also arteritis, i. e. the iliac and femoral arteries were plugged up by fibrin. This fact of a tendency to coagulation of the blood in the cavities of the heart, in connection with disease of the organ, has struck me as particularly interesting, and I have long desired to communicate the observations to you, in order to have your opinion. My inference was, that, in the cellules of the spleen, something of the same kind took place, analogous also to the arteritis above mentioned. You explain it by an effusion of blood, either spontaneous or the result of external injury; but I should have mentioned above, that in no one of my cases was there the slightest appearance of recent effusion, nor a trace of ecchymosis. It is a singular coincidence, that all of these cases were seen several years ago, and I have not, since then, met with a single one.”

In a second letter which Dr. Jackson has written to me on this subject, he says,—“ Since I wrote to you I have met with two other cases of disease of the spleen, such as those before described, both in dissecting-room subjects. One had extensive vegetations on the aorta and near to the mitral valves. The other had no disease of the heart, and this is the first exceptional case. One had a deep red ecchymosed appear-

ance just above the diseased mass in the spleen, and this was altogether the nearest approach to apoplexy that I have ever met with."

On referring to the cases noticed in my paper on this derangement of structure, and to some others which have since fallen under my observation, I find that some affection of the internal surface of the heart was present in a considerable number of those examples, but that, in a few, the heart is expressly recorded to have been healthy.

My friend, Dr. Seth Thompson, has informed me that, so long ago as the time of his visit to Vienna, in 1837, Professor Rokitsanski used to point out in close relation to this affection of the spleen, a very similar derangement of the structure of the kidney, which he also ascribed to the influence of endocarditis.

This derangement has likewise been seen and recorded by myself. It is mentioned in one of the cases published in the 17th volume of the Transactions, and in two others which were recorded in late notes.

I also find one case in which the derangement of the kidney was present, without any corresponding lesion of the spleen.

Being at Oxford in the summer of 1832, I examined, in company with my friend, G. Paxton, the body of a patient of his, and of our friend, Dr. Kidd. He was a very stout, elderly man, by occupation a coachman, but reported to have been of remarkably sober habits. He had for some time laboured under dropsical symptoms, with general anasarca. He had had considerable difficulty of breathing, and oppression about the heart. Its rythm is reported to have been rather singular, and to have been accompanied with a purring sound. About a year, or a little more, before his death, he met with an accident, by which he hurt his loins, and he continued to feel inconvenience in that region.

The heart was of enormous size, being both dilated and thickened. Its parietes were rather pale and flabby. Inter-mixed with the ordinary coagula, were some of a light colour,

pretty firmly adherent to the parietes, and having externally almost a membranous character, though soft and grumous within. The chordæ tendineæ were rather thickened and rigid. The margin of the mitral valve was a little thickened, yet scarcely sufficiently so to interfere with its function. The valves, at their attachment to the ventricular opening, were thickened and partially ossified. The margins of the aortic valves were rather contracted, and a little below their edges there was a small fold, or flap, parallel to the lip of the valve. The lungs were engorged, and slightly emphysematous. The liver was rather large. Its incised surface presented the mottled appearance that has been compared to nutmeg. The tunics of both kidneys were thickened and adherent. In one kidney, a small and defined portion of the glandular substance was somewhat indurated, and of a pale yellow colour. The tunic, where corresponding to this spot, was thickened and adherent. It was probably the result of external violence.

It is rather remarkable, that this case equally supports Professor Rokitanski's opinion and my own.

The occurrence of a similar affection in two organs so dissimilar in structure and function, but so closely associated in situation, appears to me to afford rather stronger support to the idea of a local, than to that of a general cause. Yet, with this prepossession in my mind, I cannot but attach importance to the opinion and observation of Professor Rokitanski, supported as it is by the independent evidence of Dr. Jackson, and also by a large proportion of my own examples. I see no reason against admitting the operation of both the suspected influences. To the affection of the heart itself, and probably to the state of the circulating fluid also, may be ascribed such a condition of a part well supplied with blood, as would render it very susceptible of extravasation from the application of violence, though it may have been so slight as to make no impression on the memory of the patient, or to allow his attention to be turned from it by circumstances of greater apparent moment.