CASE
OF
C A R D I T I S.

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OF POOLE.

READ JANUARY 8TH, 1839.

JUDGING from the records of medicine, genuine carditis, or inflammation of the muscular substance of the heart, is one of the rarest of human diseases: from this view I would, however, except abscess and ulceration of the heart, which have not been unfrequently observed. The older pathologists evidently did not discriminate carditis from pericarditis; and our celebrated countryman, Dr. Baillie,* dismisses the subject with little more than a page; he speaks, indeed, of having seen one case of inflammation of the muscular substance of the heart, but gives no description of the appearances; his engravings, in reference to this subject, are representations of pericarditis only.

It does not appear that either Corvisart or Laennec ever saw an unmixed case of carditis; nor does Andral, either in his *Pathological Anatomy*, or in his *Clinique Medical*, give a single instance of the disease. In a little work, published in the year

* *Morbid Anatomy*, 2nd ed. p. 19.

1808 by Dr. Davis, on Carditis, there are several interesting cases of pericarditis, but not one of true inflammation of the heart. In the first volume of the Transactions of the Medical and Chirurgical Society of Edinburgh, will be found a valuable communication from the pen of Dr. Abercrombie on the Pathology of the Heart; but it contains no case of pure carditis, neither does the work of his distinguished countryman, the late Mr. Allan Burns, on Diseases of the Heart, furnish us with a single example of this lesion. The clearest case of carditis that has hitherto been published, is that given by Mr. Stanley, in the seventh volume of this Society's Transactions: that too was accompanied with unequivocal evidence of the existence of inflammation of the pericardium; but when the relation which the pericardium bears to the muscular substance of the heart is considered, it is, perhaps, difficult to conceive, that in inflammation of the heart the pericardium should entirely escape.

The following case, which I now venture to lay before the Royal Medical and Chirurgical Society, will, I think, be allowed to have been an instance of carditis even less mixed than that described by Mr. Stanley.

N. P. Sheppard, about 50 years of age, tall and well formed, and of a fair complexion, by trade a glover, but formerly a dragoon, applied for advice March 16th, 1834. He complained of uneasy sensations in the region of the stomach, and under the sternum, increased by any sort of exertion. The appetite was good, and the pain not influenced by

eating; bowels regular; tongue clean at the edges, but the centre and back parts covered with a thin white coating; pulse natural; countenance pale. On applying the ear to the cardiac region nothing abnormal was discovered.

He states that the symptoms were first observed about six weeks since, whilst walking; that the pain was then at the lower part of the chest, inclining to the left side, and though it did not continue long was remarkably severe, producing faintness, and a cold perspiration. About a week subsequent to this he had another severe paroxysm, which occurred immediately after a walk of three miles into the country. The attacks are becoming more frequent, though not always so severe as the first; they now occur occasionally whilst sitting, and even lifting the arm sometimes brings on the pain. Accompanying the pain in the chest there is frequently considerable uneasiness about the middle of the left upper arm. There is no cough or sign of any pulmonary affection. He complains a good deal of flatulence, and says he is made worse by the use of beer. He was directed to take some pills with pil. hydrar. and ext. colocynth every other night, and twice in the day a portion of a mixture containing sulphate of magnesia and carbonate of soda: from the use of these remedies, and a strict attention to regimen, he experienced considerable relief; till early in the morning on Saturday the 22nd, when I was hastily sent for to see the patient at his house, he having previously called on me.

I found him sitting up in bed, being, from great oppression and distress in his breathing, unable to lie down. He placed his hand over the sternum, and said with great earnestness, "it all lies here." The pain was not lancinating, but of a dull heavy description; his face was pale, features sharp, and the expression anxious; and he said he felt as if he could not possibly live; pulse 80 and regular; heat of the skin temperate; pain in a slight degree increased by deep breathing; no tenderness at the scrobiculus cordis; feels some relief by raising wind from the stomach; action of the heart seems natural; chest sounds well on percussion, and the respiratory murmur is good.

He was bled to ten ounces, and had a blister applied over the sternum: in the evening there was no remission of the symptoms; his sufferings continuing distressingly severe, and the seat and character of the pain remained unchanged; the pulse had risen in frequency to 120, and was small and weak; on inspiring deeply the pain was but in a slight degree increased; pressure on the intercostal spaces did not produce pain. The respiratory murmur was heard on both sides of the chest, but the anguish of the patient was so great, that it would have been extremely difficult, if not impossible, to have made any very satisfactory local examinations. His sufferings and distress in breathing were at this time so great that he did not appear able to give any precise or intelligible account of his feelings. He was directed to take one grain of opium and four of calomel every three hours.

Sunday 23rd.—I was called early this morning to visit the patient ; the report of the attendants was very unfavourable ; he had passed a sleepless night, with restlessness and anxiety almost indescribable, frequently getting in and out of bed, and once dressing himself. He has vomited a large quantity of fluid tinged with green bile. He is still constantly obliged to observe the erect position ; pulse 130, and so feeble as scarcely to be felt ; sounds of the heart just distinguishable by the stethoscope ; surface of the body cool ; bowels open ; urine in moderate quantity, with sediment. The pain under the sternum is less complained of, but the oppression of the breathing and the anxiety are truly distressing to witness.

Evening.—The symptoms are nearly the same as those observed in the morning, with the exception that he now complains of pain on the upper and left side of the chest, and beneath the clavicle.

Monday morning, 24th.—No sleep during the night ; the restlessness, anxiety, and oppression of the chest remain ; pulse not to be felt at the wrist ; the hands, feet, and legs are cold ; the patient continued to suffer greatly during the day, but gradually becoming weaker, he died at eleven o'clock at night, about 65 hours after the accession of the acute symptoms. His mind was collected, and wholly undisturbed during the entire period of his illness.

Sectio Cadaveris.—My late pupil, Mr. White, now graduating at the University of Edinburgh, assisted me in the examination of the body.

As might have been supposed, from the rapid course of the disease, the corpse exhibited no appearances of emaciation. The front of the chest sounded on percussion well at every part. The sternum being raised, the right lung collapsed, and had a natural aspect; but the opposing pleura on the opposite side being almost universally adherent from former attacks of inflammation, the left lung did not collapse. In the right pleural cavity there was more than half a pint of serous fluid. Nearly the whole of the left lung was in a state of considerable engorgement, resembling the first stage of pneumonia; it was crepitant, but from the cut surfaces escaped a large quantity of sero-sanguineous fluid, and from one of the cut bronchial tubes a clear fluid was observed to flow, which by pressure was also forced out of the trachea. The capillary and other vessels on the bag of the pericardium were distended with red blood, especially on the left side, exhibiting a beautiful vascularity. That portion of the membrane investing the substance of the heart showed also, by its unusual vascularity, striking evidence of having suffered from inflammation; this, too, was mostly on the left side, that portion covering the left ventricle being its chief seat; but the part of the pericardium which had sustained the most intense vascular disturbance, was that which lies on, and is attached to, the diaphragm. Here there was not only a distended state of the capillary and larger vessels, but numerous ecchymosed spots and blotches resembling those observed

on the skin in purpura hæmorrhagica. There was no lymphatic, serous, or purulent effusion into the pericardial sac. The heart was somewhat larger than natural, its substance of moderate firmness; large coagula were found in all the cavities; some of these were quite white, others deprived of their red colour, and of a yellowish hue, and adhering with great tenacity to the internal parietes, whilst some portions of the coagula were dark on the outside and bleached within. There were no signs of disease in the lining membrane of the heart or valves. In the ascending aorta there were the appearances of commencing ossification. The great deviation from the normal condition of the heart was, however, found to be in the muscular substance of the left ventricle: excepting a small portion of a few lines in thickness on either surface, the left ventricle had entirely lost its muscular colour; it was of a lightish yellow hue, but still preserving the fibrous character of muscle. From all the cut surfaces of the various sections which were made, could be scraped purulent matter. In some parts absorption had taken place, leaving small cavities in the muscular substance, varying from the size of a pin's head to that of a small pea; these were all filled with pus. The stomach was large and flaccid, and contained a considerable quantity of fluid. The mucous membrane of the pyloric half was of a dingy red colour, from a spotted vascularity. The liver appeared quite healthy. The jejunum was inflamed, both in its peritoneal and mucous coats, for the greater portion

of its length. There were no other diseased appearances.

REMARKS.

From a review of the symptoms and progress of this case to its fatal termination, it would, I think, appear, that a chronic inflammation of the muscular substance of the left ventricle of the heart, constituted the primary disease, and that it no doubt existed at the time the first symptoms occurred; this supposition, if correct, explains the effect of bodily exertion, even of the most trifling kind, occasioning so much distress. It is evident that the left ventricle, from the unnatural state of its muscular fibres, must have been unequal to the task of propelling more blood than the state of perfect quiescence required. The accession of the violent symptoms manifested on Saturday morning, (23rd,) may have arisen from the inflammation then assuming an acute form, and extending to the pericardium. It was not until the Sunday evening, (thirty hours afterwards,) that the patient complained of pain in any other situation than the region of the heart, and this, as has been before stated, was at the upper part of the chest, from just below the clavicle extending downward to the sixth rib, immediately over that portion of the left lung found on dissection in a state of inflammatory engorgement. The pneumonia seems to have been the last link in the chain of morbid action; a consecutive disease, produced by the diffi-

culty in transmitting the blood through the heart, and also from the disturbed state of the vital powers generally; but more especially of those of the central organ of the circulation, with the healthy performance of whose functions the lungs are so intimately associated. The progress of the case was so rapid after the occurrence of the acute symptoms, that but little time was allowed for the action of remedies; the state of the pulse, and the depression of the vital energies, on the evening of the first day, were such as to contra-indicate further depletion; the counter irritation from the blister failed to afford relief; the only hope that remained was from the use of calomel and opium; and though these were unremittingly given, no constitutional or beneficial influence resulted. Had the exact nature of the complaint been known when the patient first sought assistance, on the 16th of March, it is more than probable, that blood-letting and counter irritants, aided by the constitutional operation of mercury, might have led to a different issue: but the disease at that time was supposed to be functional angina, the sympathetic offspring of gastric and hepatic disorder, not unfrequently witnessed by practical men.* The diagnosis in these cases is

* I knew a gentleman who suffered severely from functional angina pectoris for several years. He had the advice of more than one eminent physician, who considered his symptoms to arise from ossification of the coronary arteries; he, however, eventually lost his complaint by leaving off meat suppers, at the suggestion of Mr. Abernethy.

often confessedly difficult among the general symptoms ; the one most decidedly pathognomonic of organic change, is breathlessness on exertion. This symptom was certainly well marked in the case here narrated ; but it must also be observed, that it likewise occurred at other times, and when no exertion had been made ; in cases in which there are long intervals between the paroxysms, and which are mostly of a chronic kind, there is less difficulty in the discrimination.