Original Articles.

UNSUSPECTED HEART-DISEASE.¹

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SIR ANDREW CLARK reported, before the British Medical Association, in 1887, 864 cases which he had seen during the years 1873 to 1886 inclusive, suffering from chronic valvular disease of the heart, "which was not indicated by symptoms, and had not sensibly interfered with the health."²

Every practitioner must have been struck with the occasional appearance among his patients of similar cases; and I venture to report some which have lately occurred to me, with the purpose, not so much of endeavoring to establish a fact already well known, as to enforce its practical bearing. In my cases the patient had no idea of any cardiac trouble, and indeed some of them were such that the physician would not be led by the rational signs to regard organic heart-disease as the most probable diagnosis.

CASE I. Mr. I. W. H., aged fifty-one, was a retired business man who used very strong tobacco to excess. He described himself as a "tobacco worm." This gentleman was fond of an out-door life, and in October, 1889, while making a "carry" in the woods with a rather heavy load upon his back, he experienced a sudden pain in the jaws, severe enough to make him stop, whereupon the pain ceased; but it recurred when he resumed his march. From that time to the time when I first saw him, seven months later, the pain was felt upon either excitement or exertion; and there had been added to it a palpitation of the heart. The double aortic lesion which was found upon examination had not, in any way, interfered with his pleasures or exertions until the time when this neuralgic pain first appeared.

CASE II. Mr. C. G., aged thirty-three, a contractor, experienced an accidental injury for which he was brought into the Massachusetts General Hospital, November, 1890, coming under the care of Dr. C. B. Porter, who kindly permits my mention of the case. Physical examination revealed, beside his surgical injuries, slight lateral enlargement of the heart, with a systolic apex murmur transmitted into the axilla, and a to-and-fro murmur in the second interspace on the left. In this case no symptoms had pointed to the heart. But for the accident, it is not probable that the patient would have come under medical observation.

CASE III. J. R., aged nineteen, fell down stairs and injured his right ankle ten days before he called upon me. He was confined to bed for nine days, but on arising he noticed trouble about the heart, having never had such symptoms before. He came to me supposing that the fall had caused heart-disease. On investigation, it was found there was no history of rheumatism or scarlet fever; but the patient had had small-pox when a child. The heart's apex was in the fifth space outside of the nipple. There was enlargement of the heart a finger's breadth to the right of the sternum, a presystolic thrill at the apex, a presystolic and systolic apex murmur, and a double murmur over the aortic region with a typical "crural

tone" in the femoral artery, — a condition of things evidently chronic.

CASE IV. (Reported by the kind permission of Dr. F. C. Shattuck.) Mr. H., aged thirty-four, a gardener, complains of purpuric spots, and pain in the muscles of the legs. Otherwise he feels perfectly well and looks well, and his bodily functions are well performed. Examination, however, reveals a systolic thrill at the heart's apex, and a loud systolic murmur heard best in the fourth space on the left, but audible all over and even outside of the cardiac area. The pulmonic second sound is not accentuated, nor is the heart much enlarged. The murmur, which is somewhat rough in character, has persisted now for several months, and is in all probability due to mitral regurgitation well compensated.

CASE V. (Also reported by permission of Dr. F. C. Shattuck.) Herbert F., aged twenty-one, a farmer, had acute articular rheumatism four years ago; but, after recovery from that, he had done hard work and enjoyed excellent health until three days before entrance into the hospital with the symptoms of subacute rheumatism. Examination established clearly the existence of mitral regurgitation, referable not to the present, but to the first attack of rheumatism.

CASE VI. (Reported by the courtesy of Dr. H. C. Ernst.) D. O'G., aged twenty-six, teamster, comes to the out-patient department of the Massachusetts General Hospital, on account of an eruption of secondary syphilis. Although on questioning he states that he has some years previously undergone an attack of rheumatism which confined him to the bed, and for the last three or four months has had some dyspnea on exertion, he maintains that the only symptoms which led him to seek advice are connected with his venereal trouble. Examination shows an enlarged heart with a distinct presystolic thrill and presystolic murmur at the apex and accentuation of the pulmonic second, — mitral stenosis.

CASE VII. (Reported also by permission of Dr. Ernst.) William D., aged twenty-six, a butcher, complains of "pain in the kidneys," great thirst, cramps and dull aching pain through the legs at night, excessive appetite, frequent micturition and loss of twenty-two pounds weight. On later inquiry he acknowledges that four years ago he had an attack of acute articular rheumatism lasting three months, but he has never noticed any cardiac symptoms. This patient was brought to the medical clinic at the hospital as a case of diabetes mellitus, and with good reason; but the prominent pulsation of the temporal arteries in so young a man (twenty-six years) called attention to the heart, which was found to be hypertrophied and affected by both aortic and mitral incompetence.

CASE VIII. N. S., aged seventeen, was in the Massachusetts General Hospital November 13 to December 29, 1890, with uremia; and on examination he was found also to be suffering from mitral regurgitation. In May, 1891, and again in October, 1891, the patient returned for observation, and no complaint of cardiac symptoms could be elicited, although the objective evidence of the heart lesion was still present.

CASE IX. John D., aged twenty-two, a waiter, had rheumatic fever four years ago. The reason for his seeking advice, in May, 1891, I have forgotten; but I am confident that it was no direct cardiac symptom. He had been ailing only two weeks. On examination a double mitral lesion, with a thrill at the apex, and

¹ Read before the Section of Clinical Medicine, Pathology and Hygiene of the Suffolk District Medical Society, November 18, 1891.
² British Medical Journal, February, 1887.

an aortic regurgitation, were made out, and there were also moist râles above the right clavicle.

CASE X. William M., aged forty, complained that for one week he had experienced cough and pain in the chest. No other symptoms could be elicited. Examination disclosed moist râles in both bases behind, also a double aortic murmur and a systolic murmur at the apex transmitted into the axilla.

CASE XI. F. S., aged fifty-six, paper-hanger, has had a cough all winter, with little expectoration, and he also suffers from "sour stomach." The heart is irregular in action and the aortic valve is incompetent.

CASE XII. Daniel S., aged seventy-two, complains of being "sore all over" and "choked up in the chest." He coughs all night, with a mucous expectoration. Bread and tea are the chief diet. The pulse is irregular, feeble and intermittent. There is a faint systolic murmur at the apex, transmitted towards the axilla. Pulmonary œdema exists at the bases of both lungs.

Of these twelve patients, five had disease of both the aortic and mitral valves, four had mitral regurgitation, one had mitral stenosis, one had aortic regurgitation, and one had both stenosis and incompetence of the aortic valves. Of the 684 cases reported by Sir Andrew Clark, 41 per cent. had mitral regurgitation, 24+ per cent. had aortic stenosis, 14 per cent. had affections of both valves, 9 per cent. had mitral stenosis, 4½ per cent. aortic regurgitation, 3½ per cent. aortic obstruction and regurgitation, and 2½ per cent. mitral obstruction and regurgitation.

According to his experience, therefore, we might infer that mitral regurgitation is the least unfavorable valvular disease, and next to it aortic stenosis; but different authorities differ widely about this question. Fagge regards aortic stenosis as of the least relative importance, followed by mitral stenosis, next to which—but separated by a long interval—come mitral regurgitation and aortic regurgitation. Strümpell believes that aortic regurgitation generally gives the best prognosis, that mitral insufficiency is rather worse, and that worst of all are mitral stenosis and aortic stenosis.

If we search for an explanation of these apparent contradictions, we shall find it in the all-important fact that every case of heart-disease must be judged independently. The crucial test for the heart is its ability to carry on the circulation. Now it is easy to see that the size of the leak or the degree of the stenosis may vary between great extremes, that the development of compensatory hypertrophy may be ample in a young and robust individual of good habits, and next to nothing in an old and syphilitic drunkard, and that a stationary lesion which presents no changes in the course of one or more years, is less to be feared than one which is still progressive. The names mitral stenosis, aortic regurgitation, and the like, tell only a part of the truth, and that not the most important. Myocardial degeneration without a murmur is a worse thing than valvular lesion with adequate hypertrophy. And although I do not here present such a case, the determination of the state of the cardiac muscle demands even more vigilance in physical examination than the condition of the valves. It should be added perhaps, to avoid misunderstanding, that given a defect in the valves, the degree of cardiac hypertrophy is to some extent, a measure of the importance of that

defect. If compensation is good, the less the hypertrophy the more favorable the case.

The twelve cases reported by me had this one thing in common: for a considerable period of time they had had heart-disease and yet had been entirely unconscious of the fact. Some of them, indeed, did not have symptoms suggesting heart-disease to a physician, thus affording a striking contrast to the sufferers from functional disorders who so frequently demand a physical examination and who are so slow to be convinced that their hearts are not organically diseased.

The ordinary rational signs of heart-disease may be briefly enumerated as follows: dyspnoea, palpitation, precordial distress, headache, vertigo, cough and indigestion. Of my cases, one, it will be remembered, confessed on questioning that he had suffered somewhat from dyspnoea, although he asserted that the trouble was very slight. With this exception none of the patients presented the rational symptoms just enumerated, except cough (which was present in three cases) and indigestion (which was present in one case).

Of Clarke's 684 cases, 402 had digestive symptoms, 35 had headache, 17 had vertigo, 23 had bronchitis and seven had pulmonary congestion; so that really 487 might be said to have presented symptoms suggesting the possibility of cardiac disease; but even then, the large number of 197 remain, the correct diagnosis and proper treatment of which hung upon the physical examination.

The lesson to be gained from these observations is the necessity of thoroughness in the physical examination of every patient, so far as practicable. There are those who regard it a mistake to inform a patient as yet undisturbed by cardiac symptoms that he is the victim of a cardiac disease. Bristowe, for example, speaking in this connection says, "I am sometimes inclined to think it is a pity there are physicians. Many persons would lead a happy life enough but for them. If a patient has a heart-trouble, he does not wish to learn the fact." My own view is that, under ordinary circumstances, the earlier such a discovery is made by the physician and communicated to the patient, the better. This affords a fair chance for averting cardiac failure. A sensible patient, properly advised as to his physical limitations, may be able to lead a long, happy and useful life, whereas unwarned he might soon collapse into hopeless invalidism.

A REPORT OF 392 CASES OF INTUBATION AND 139 CASES OF TRACHEOTOMY DONE AT THE BOSTON CITY HOSPITAL.¹

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INTUBATION for the relief of laryngeal obstruction in diphtheria was done at the Boston City Hospital, for the first time, on December 31, 1886, and from that time up to January 1, 1891, it has been done in 392 cases. During this time tracheotomy has been done 139 times; 82 of these being primary operations, 36 after intubation, and 21 after attempted intubation.

In the report of cases of tracheotomy made by Drs. Lovett and Munro,² were included all operations per-

¹ Read before the Surgical Section of the Suffolk District Medical Society, November 4, 1891.

² Lovett and Munro: *American Journal Medical Sciences*, July, 1887.