TWO CASES OF CARDIOVASCULAR SYPHILIS

(With special reference to treatment and to certain physical signs).

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Case I.

A male patient, aged 54, was first seen in March, 1932, complaining of a suffocating feeling which only occurred after exercise. He had suffered from it since October, 1931. The onset had been sudden, and was in the nature of an attack of pain which would come on after hurrying; when he had walked five minutes he would have to stop, and he particularly noticed it going uphill. It occurred centrally across the front of the chest and radiated to the back of the neck, to the arms, and even occasionally to the legs. It invariably disappeared on resting. On examination there was no discoverable abnormality, the apex beat being in the mid-clavicular line and the sounds normal. There was no hyperæsthesia, and the blood pressure was 132/72. In view of the definite organic nature of this pain and because there was no sign of arterio-sclerosis, hyperpiesis or disease of the aortic valve, a Wassermann reaction was done. This was strongly positive. He was therefore advised to undergo a course of treatment, and it was explained to him that he should persist with treatment until the pain had completely disappeared. When seen four months after, he had been taking full doses of potassium iodide and had had a course of intramuscular bismuth. He could now walk on the level for a long distance without pain, but still got some slight pain walking up hills. The shortness of breath was slight. He subsequently had three courses of Stabilarisan, starting with 0.15 of a gram and increasing the dose up to 0.6. This course of treatment extended over the following eighteen months. At the end of this time he no longer complained of pain, constriction or shortness of breath. He could run upstairs, could walk two or three miles in a day over rough fields, without symptoms. And he has remained well for the last three years.

Case II.

A male patient, aged 53, was first seen in 1929. His chief complaint was of a precordial pain from which he had suffered for five months. This pain was central, sharp and constricting at its first onset, but when seen had become a dull feeling of oppression. On examination he was found to be a well-looking man, the only abnormality being that the heart was enlarged, the left ventricle being hypertrophied. The apex beat was $4\frac{1}{2}$ in. to the left in the 6th space and a slight diastolic thrill was present over the aortic base. On auscultation there was a definite aortic regurgitant murmur. The Wassermann reaction was strongly positive. The electrocardiograph showed a P R interval of 0.2 of a second, and the X-ray showed an enlarged left ventricle with considerable widening of the ascending aorta but no localized aneurysm. Since that date he

has been under continuous observation, and by September, 1936, he had had eight full courses of Novarsenobillon, each course consisting of something more than 3 grams. His pain has completely disappeared and he has been feeling well. There is no dyspnoea, no swelling of the feet and no symptoms except an occasional stitch-like feeling half-way between the nipple and the sternum.

There are two points of interest in this case. First, his demonstration of the fact that the two essentials for successful treatment of syphilitic aortic regurgitation are (a) a willing attitude on the part of the patient, and (b) a reasonable persistence on the part of his medical attendant. It is probable that the bad prognosis usually given in such cases is due to the fact that the available statistical records are not records founded upon a series of really adequately treated patients. There is a second point of interest, with regard to physical signs, and that is that it would appear on clinical grounds that this patient's aortic regurgitation was rather due to dilatation of the aortic ring than to definite distortion of the valve cusps. There are two reasons for this statement: first, that the aortic second sound was quite loud and clear, and the second, the presence of the aortic thrill. If disease of the aortic valves were sufficient to produce aortic regurgitation it is unlikely that they would fill out sharply and with a sufficient snap to give a clear second sound. The writer also described the post mortem findings in a similar case with aortic regurgitation and a diastolic thrill, in the *Lancet*.⁽¹⁾ In that case, too, there was no disease of the aortic cusps although there was a syphilitic dilatation of the aortic ring as a whole.

Discussion.

Syphilis can affect the heart in two ways. The underlying lesion in both cases is a syphilitic aortitis. This lesion may either constrict the openings of the coronary vessels or can produce an aortic regurgitation in one of two ways, either by causing a general dilatation of the aortic ring or by direct inflammatory extension on to the aortic valve cusps by way of the valve commissures. The only characteristic symptom of an aortitis in the absence of an aortic regurgitation is pain of a true angina of effort character, that is to say, pain which comes on during exertion, is proportional to it, and which disappears on resting. Should such a pain occur in an individual who has no discoverable signs of cardiovascular disease, syphilitic aortitis should be suspected. The therapeutic point which emerges is that the disease is at this stage curable. The two chief factors necessary for success are first, the personality of the patient, who will be willing still to undergo treatment after symptoms have subsided, if the Wassermann reaction remains positive, and secondly, a determination on the part of the physician to insist on this course being followed.

Conclusions.

(1) Syphilitic aortitis, with or without aortic regurgitation, is a definitely treatable disease in which the prognosis is not necessarily bad.

(2) It is possible to diagnose clinically the presence of an aortic regurgitation which is due to a stretched aortic ring rather than to deformity of the valve cusps.

(1) Bourne, G., *Lancet*, 1932, 1, 286.