

such pain, however trivial, should receive careful consideration in all cases of rheumatism.

Most authors agree in describing delirium of various forms as frequently present, even in the absence of febrile movement. When endocarditis complicates the case the delirium is liable to take on a suicidal tendency; and of the character of *delirium tremens*, when there is some fever with prostration.

It was most marked in "dry pericarditis, disappearing with effusion." Such pain was very marked in a case recently under my care, in which there was, as well, severe and obstinate pain, produced by the act of swallowing, probably due to pressure on the pericardium posteriorly. The disease is usually latent, however, and will escape notice unless sought for with the utmost care. In all cases there is a tendency to rapidity and weakness of the pulse with dicrotism, probably from a certain degree of implication of the myocardium.

Myocarditis probably seldom occurs independently of inflammation of either the endo- or pericardium, especially of the latter. MacLagan, however, is very positive of the frequent occurrence of a primary inflammation of the heart muscle, and that it may be diagnosed by the weak, rapid dicrotic pulse. Its existence in any case, of course, adds materially to the gravity.

Prognosis.—With the exception of cases in which the cardiac muscle is seriously affected, the immediate prognosis is usually favorable; few die as the result of the heart disease apart from myocarditis. In young children, however, suffering from acute disease, the heart yields more readily to strain, probably on account of the immaturity of the tissues, hence they bear disease badly. But if they escape the immediate effects of the disease the heart recovers itself more readily and develops more rapidly, hence compensation is soon established and emphatic. On this account we seldom see evidences of much impediment to the circulation, as great enlargement of liver and spleen, cyanosis and extreme dropsy; these are more frequent as age advances. Goodhart attributed this partly to the anæmia with diminution in the quantity of the blood as part of the general wasting.* Cheadle gives another cause. "Children with severe heart disease, as a rule, die from

other causes before the stage of grave tricuspid leakage is reached. Instead of the engorged liver and lung, with blueness, extreme dyspnoea and general dropsy," as seen so often in adults, "there is rapid wasting, progressive anæmia, feebleness and death from asthma rather than from the direct injury to the mechanism of the circulation."* Fagge† says the aspect of a child with cardiac disease is rather that of phthisis. He is pale and thin, with dilated pupils, a delicate skin, and quick pulse. In older children and adults, the ultimate prognosis usually depends on the degree to which the lesion causes interference with the functions of the heart. In young, well-nourished persons it is often amazing what extensive valve changes may be compensated for, and for what almost indefinite duration the compensation may be maintained.

In older persons the prognosis will depend greatly on the condition of the vascular system, being rendered less favorable by any sclerotic or other unctuous changes that may be present or develop. Leyden says that age does not impede the development of compensatory changes in cases of valve diseases. With advancing age the cardiac muscle gains in volume and power, and the heart is the only organ whose comparative bulk increases with age, so that perhaps the heart of older persons has even more endurance than that of younger ones.*

In recent cases, we should not forget that the evidences of disease, especially mitral incompetency, and occasionally aortic obstruction, may disappear after some weeks, or, it may be, months. Over against this, unfortunately, we have to set two unfavorable possibilities, namely, that a lesion which, just after its development, but slightly disturbs the mechanism of the circulation may increase, from the tendency of the new cicatricial tissue to contract, and secondly, that one attack of endocarditis predisposes to another, especially in the anæmic.

Then much will depend on the mode and circumstances of life. The prognosis is more favorable among the well-to-do, for, while they are exposed to the liability of over-feeding, with its tendency to cause arterio-sclerosis and atheroma,

* Ibid.

* Principles and Practice of Medicine, Vol. I. p. 983.

* Annual of the Universal Medical Sciences, 1890.

* Cheadle-Harveian Lectures, *Lancet*, 1889. Vol. I. p. 926.