

of the child's limb, usually show no swelling; however, even the mildest of them may be accompanied by the most serious cardiac disease.

It is necessary to refer briefly to other ways in which rheumatism may manifest itself, especially the more unusual. One of the most important, and probably least frequently recognized, is rheumatic inflammation of the throat. It is common among adults at certain seasons, and not infrequent in children. In many cases it recurs repeatedly. Last year there was a girl, aged 12, in the Hospital for Sick Children of this city, who presented a good example of this form of rheumatism, recurring from time to time. She had marked stenosis of the mitral orifice with a protracted history. The endocardium appeared to have been the seat of mild recurrent rheumatic attacks, which caused gradual, but in time, extreme narrowing of the mitral orifice. The condition of the heart was verified by the autopsy after her death at the Girls' Home.

Another case occurred in the practice of my friend, Dr. James McCallum. The child, four years old, was supposed by the parents to have diphtheria; but there was no membrane. The left shoulder was found tender and somewhat swollen, and further examination revealed a well marked endocarditis of longer duration, probably, than either the arthritis or the throat disease.

Occasionally the rheumatic process shows itself in an attack on the subcutaneous tissues, causing the formation of nodules over the bony prominences. This may be the only sign, or it may occur with articular inflammation. There was such a case in the Hospital for Sick Children last year. The boy had slight inflammation of the wrists and ankles, and at the same time many nodules up to the size of a bean formed over the occiput, the spinous processes of the vertebræ, the scapulæ, the iliac crests, the elbows and the tibiæ. They all disappeared quickly with the recovery from the rheumatism. There was also disease of the mitral valve with regurgitation, of which he has since died. Such nodules are of more frequent occurrence in England, and are sometimes found to persist. They appear to be more frequently met with in association with pericarditis.

The various aspects of erythema multiformæ are frequently due to the same cause. With them

may be included many cases of urticaria. Erythema nodosum is possibly always of rheumatic origin, and should be treated as a probable sign of that disease. Other unusual phenomena as possibly of rheumatic origin are inflammation of such serous membranes as the pleura, peritoneum and meninges, of the sclerotic coat of the eye, and of the nerves. It is probable also that mild attacks of rheumatism occur without showing any local changes. In these, local inflammations may possibly occur in the deeper tissues beyond the reach of examination—there seems no reason why such tissues should escape the influences of a poison whose powers are so potent upon superficial tissues.

In cases with any of the foregoing, as well as with the commoner manifestations of the rheumatic process, the heart may become involved—simultaneously or as a sequel, or, what is of special importance to remember, it alone may be the seat of attack. Hence the rheumatic heart lesion is not an accident in the history of any case, unless, indeed, all local inflammations—whether of the joints or other parts—are to be looked upon as accidents; so that it should be included among the list symptoms of rheumatism. Probably the heart is affected oftener than any single joint. We cannot insist too strongly on the importance of being on the alert to the fact that, in children, especially, any sign of rheumatism, be it never so mild, is liable to be accompanied by disease of the heart, it may be, of the most grave character. As the signs of rheumatism, when latent, may so readily escape our observation, I would urge the necessity of examining the heart in all pyrexial attacks of uncertain origin when they occur in children, otherwise we may miss for days a lesion of the heart, which, had we known, we might have mitigated, if not prevented.

Cardiac lesions seldom occur in the adult apart from an acute attack of rheumatism. After the third decade, our chief anxiety in regard to our patients with acute rheumatism is in connection with the future usefulness of the joint; while with our younger patients we have little fear as to the complete recovery of the joints, our anxiety now is almost wholly concerned with the heart. The younger the child the more probable is it that the rheumatism will fasten on the heart to the exclusion of the joints or other structures.