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THE CARDIAC PHENOMENA OF RHEUMATISM.*

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Rheumatism occurs with much less frequency in this country than in England and the northern parts of Europe. Some years ago there were at one time ten cases of heart disease in the Toronto General Hospital, and all were from England and had acquired the disease in that country. The reason for our greater immunity is to be sought for probably in our dryer climate chiefly, but largely also in the mode of living in the two continents. Our poorer people live on a much more bountiful diet, of a better quality, than their peers in the old land and are better housed, and are therefore better able to resist such climatic influences as are supposed to bear a causative relationship to the disease. Nevertheless, rheumatism, with all its untoward phenomena, occurs with painful frequency in this country, as is attested by the relatively large number of cases of heart disease met with, and the great majority of them own a rheumatic origin.

On few diseases has more been written, and in no disease is there a greater feeling of uncertainty as to the cause, than rheumatism. On but one point, apparently, are most agreed, viz.: that the disease is due to some poison in the blood, and to the irritation of such poison is due the widely-distributed lesions resulting. As to the nature of this poison opinions are almost as varied as their authors; but most of them can be included under two classes, viz.: first, those holding the

cause to be a chemical irritant, as lactic or uric acid; and, secondly, those believing it to be a bacterium, probably a micrococcus or a bacillus. It is very probable that both may be correct—that the group of phenomena included under the term rheumatism is not a simple disease, depending upon a single cause, but rather a series of diseases with similar phenomena, produced by a variety of causes. We can scarcely explain the multiform characters of rheumatism, acute and chronic, in any other way.

If on further investigation it is found that bacteria are capable of producing rheumatism, it will probably be found that they are the always active agents in the causation of acute rheumatism, mild or severe, and then, of course, also of the heart lesions occurring in rheumatism.

Recently it is reported that the staphylococcus albus was constantly found in cultivations from the blood of a case of chorea with acute endocarditis, and, once, the *S. aureus*;* there is little room to doubt that the chorea in such a case was simply a manifestation of rheumatism.

German pathologists are becoming more and more unanimous in viewing primary endocarditis in all its forms as due to germs of some kind, the resulting changes in the endocardium, whether thickening, warty excrescences, or ulcerations, being due simply to difference in virulence of the germs.

Whatever the cause of rheumatism may be, it is constant in its selection of tissue to attack—the fibrous structures only are primarily affected, but these may be in the most varied situations. We have so long associated the term rheumatism with the swollen joint, fever and sweat, that we have come to look upon all other manifestations as accidents or complications. But the affections of other fibrous structures are quite as essential a part of the disease as the joint inflammation, and this broader conception of the disease is forced upon us by the study of these other phases, especially as met with in children, in whom the joint affection is usually mild, and often wholly absent. The so-called growing pains may be due to a neurosis, or a rapid development of epiphyseal cartilages.† Yet the great majority of them are rheumatic, but, on account of the plumpness

* The address on Medicine, Ontario Medical Association, Toronto, June, 1891.

† *Brit. Med. Jour.* supplement, '91, vol. I., 149.
† Jacobi, *Med. News*, 1886, vol. I.