

the lesions resemble pyæmia in their distribution, but differ in that they do not go on to suppuration. Later on this will be referred to in greater detail.

The lactic acid theory has had more advocates than any other. It originated with Prout who claimed that the rheumatic poison was lactic acid and originated as a chemical poison from the perversion of some nutritional process. Lactic acid is a product of tissue metamorphosis, and is produced during muscular activity. It may be excreted unaltered or become oxidized into carbon dioxide and water. Its adherents believe that chilling of the skin arrests sweat excretion and consequently elimination of lactic acid. Profuse perspiration is an effort of system to throw off the poison. This theory was opposed by such men as Garrod, Bouchard, Fuller, MacLagan, Salomon, etc. The strongest evidence in its support, however was that adduced by Sir Walter Foster in 1871. He administered small doses of lactic acid to a patient suffering from diabetes mellitus and immediately set up an acute attack of rheumatism. The rheumatism subsided with the cessation of the administration of the lactic acid and recrudesced when it was again given.

Neurochemical theory. This was advanced by Dr. Latham as a modification of the lactic acid theory. He thought that exposure to cold caused constriction of the cutaneous vascular areas and reflexly through the vasomotor system corresponding dilation of the vascular areas of the muscles and of the viscera, thus increasing molecular transformation in their substances. Products of muscular metabolism are lactic and glycolic acid, and these passed into the system unoxidized. Latham believed that uric acid is the actual poison both in rheumatism and gout, but that in rheumatism the phenomena are modified by the presence of lactic acid in addition.

In the observation of cases of rheumatism of all forms, the writer was confronted with their invariable association with some stomach disorder of hyperacid or fermentative type. Although frequently the patient denied that he was a sufferer from stomach trouble, still a careful symptomatic history would reveal its presence. The discovery of this relationship led to the investigation of a series of related diseases, tonsillitis, iritis, pleurisy, etc., for the presence of the same factor, with invariably the same result. The conclusion was then drawn that probably the condition of the stomach was the primary factor, or at any rate was an antecedent feature, in the causation of rheumatism and prepared the way for the invasion of some specific organism.

If this were true then it would be necessary, Dr. Deeks argues, in all cases of acute and chronic rheumatism to first get rid of fermentative