

of the acute type of arthritis deformans, wrongly diagnosed as rheumatic fever.

The two main views, which have been held regarding the cause of these chronic joint conditions, have been (a) that it was primarily a disease of the nervous system, and (b) that it was of an infectious nature either from a specific organism or as the result of the infections of various organisms. The main points which have been brought forward in support of the first view are the symmetry of the lesions, the progression from the peripheral joints to those nearer the body, the supposed similarity of the lesions to those which occur in certain diseases of the clearly nervous system, such as locomotor ataxia, the marked muscular atrophy, various disturbances of sensation and reflexes and the occurrence of neuritis. When these are examined carefully we find that as a rule the lesions are not exactly symmetrical although the statement that they are has been repeated over and over again, and while in many instances they begin in the peripheral joints, yet not infrequently the larger joints are attacked first. As to the similarity of the joint lesions to those secondary to chronic diseases of the nervous system it must be kept in mind that the descriptions are of the very late changes in arthritis deformans, after years of progress when the process is one of degeneration and not one at all peculiar to the disease. The changes such as muscular atrophy, etc., are difficult to explain, at any rate in some instances. In these patients we not infrequently find that the whole metabolism seems to be profoundly affected, but there is no question of the unusually rapid progress of muscular atrophy especially in the muscles of the hand. The alterations in the reflexes are common in joint conditions of various kinds and it would be a mistake to attach too much importance to them. The occurrence of neuritis is usually easy of explanation, being generally by direct extension. Thus in the arthritis involving the spinal joints it is very common to have this secondary neuritis in the nerves in close relation to the affected vertebræ. The possible effect of toxins in the nervous system has to be kept in mind.

Turning to the second explanation of an infectious origin there seems very much more evidence in support of this. The onset in many cases is acute with polyarthritis, fever, leukocytosis, etc., which is suggestive. There is glandular enlargement corresponding to the infected joints, in some instances enlargement of the spleen and occasionally visceral complications, such as pleurisy and pericarditis. But perhaps the suggestive point is the association with definite sources of infection. Thus tonsillitis, pyorrhœa, dysentery, infections of the urogenital tract, conditions of the pelvic organs in women, seem in some instances to stand in causal relationship. Infection of the nasal sinuses, influenza infection