

be remembered that atrophy of the muscles takes place in all forms of chronic arthritis, and even in subacute cases; syphilitic and tuberculous and hæmophilic arthritis are frequently attended by atrophy. No matter what the cause is then, it must be due in the first place to some change in the joint, and not to any supposed changes in the spinal cord. It is in the first place an arthritic affection.

The fact that causes that are well known to bring about a lowered resisting power of the nervous system are often prominent in rheumatoid arthritis does not directly prove the involvement of the nervous system. Such causes act as well on the general nutrition as on the joints.

The not infrequent perverted sensory disturbance preceding the onset of rheumatoid arthritis has been advanced as tending to prove the nervous origin of the disease. I have never been able to ascertain that there was an objective disturbance of sensation in rheumatoid arthritis. No matter how extreme the muscular atrophy, it is not attended with any loss of sensation. Subjective disturbance of sensation is a frequent symptom of many general conditions, due generally to auto-intoxication from the intestinal canal, and its frequent presence in rheumatoid arthritis does not, as far as I can judge, lend much support to the neuropathic origin of this disease.

On the whole it must be considered that the evidence pointing to a nervous origin of rheumatoid arthritis is very meagre.

II. *The Relation of Rheumatoid Arthritis to Tuberculosis.*—Pulmonary and other forms of tuberculosis appear to be more frequent in the families of sufferers from rheumatoid arthritis than they are in other non-tuberculosis diseases. In the series of 40 reported cases such a history was only obtained in three cases, a proportion not greater, if as great as, in people in good health. Fuller, in a report on 119 cases of rheumatoid arthritis, found a history of phthisis in 23 cases. Charcot and several other observers have found tuberculosis of the lungs and lymphatic glands not infrequent antecedents in their experience. A few cases have been published where both diseases were apparently present at the same time, one joint being tuberculous, while others resembled the joint lesions of rheumatoid arthritis. There is, however, nothing in common between the two diseases, although in some respects there is a similarity between them. Tuberculosis is an infectious disease, prone to attack those who have an inherited predisposition to it. There is every reason to believe that rheumatoid arthritis is also of an infectious nature, nor is there any doubt that there is an inheritance of what we call an arthritic diathesis; that is an inheritance which involves a tendency to inflam-