

shorter time than on its fellow, and by bearing more weight upon the front of the foot than on the heel. When the joint becomes very sensitive the patient bears practically all the weight upon the front of the foot, slight planar flexion being combined with slight flexion at the knee and hip and thus the characteristic symptom of what is known as the first stage of the disease is produced. This limp is a constant symptom of hip-disease, usually more noticeable in the morning or in changing from an attitude of rest to one of activity.

Stiffness, due to reflex muscular spasm, is claimed by the best authorities, such as Whitman, of New York, to be by far the most important symptom of the disease. It is the expression of the inability of the joint to perform its full function. It often precedes the limp and it remains long after pain has ceased to be a symptom and until repair is complete. The muscular spasm limits motion in every direction to a greater or lesser degree, according to stage of disease and the degree of spasm corresponds to the sensitiveness of the joint rather than to the amount of destruction which has taken place. As we all know the spasm varies from day to day, so that in the acute exacerbations, motion may for some days be so restricted as to simulate ankylosis. One of the cardinal things to remember in examining any joint, is that reflex muscular spasm is always an indication of a sensitive or inflamed joint, not necessarily tuberculous in character, as it may be the result of an injury, but if the spasm is chronic in nature and confined to a single joint,

it is, in childhood at least, almost always tuberculous in character.

As the disease progresses motion is still further lessened by adhesions and contractions within and without the joint.

The distortion in the limb is due to the constant muscular spasm which is bound to produce certain changes in the attitude of the limb, slight flexion being the earliest symptom of distortion, accompanied later by abduction and external rotation and apparent lengthening of the limb, the symptoms of which you are all familiar with, followed by the period of apparent shortening in which we get increased flexion, adduction and inward rotation, indicating that the limb is of little use, drawn into a position where it may be as little used as possible. It is claimed by some authorities that locomotion has a distinct influence in the production of the distortion, as in cases of hip-disease in infancy, the position of adduction may persist throughout, although the muscular spasm may be intense. This latter position as has been called the "second stage" is usually an indication of acute and disabling pain and of corresponding intensity of muscular spasm. It is perhaps the most destructive stage of the disease and is the attitude characteristic of the so-called "natural cure" when mechanical appliances have not been used in the treatment. The changes in the contour of the limb in the early stages are caused in great part by the attitude of the limb. The broad and flat appearance of the buttock on the affected side, the disappearance of the gluteal fold, the deepening of the inguino-femoral fold are all accounted for by the different