

which is a spasm of acute pain, evidenced by a loud piercing cry. The child then sobs for a minute or two, never entirely gaining consciousness, and finally falls fast asleep again. This sign is of importance from a standpoint of prognosis, because it gives some idea of the extent to which the disease has advanced. That the slight rubbing together of the bones results in reflex muscular spasm, means that the ends of the bones are rough and diseased. This is a sure indication that the process is no longer confined to the interior of the bone, but that it has invaded the cavity of the joint.

The other symptoms of the disease, which are more properly termed physical signs, are stiffness, distortion, change of contour of the hip and atrophy.

Stiffness, due to reflex muscular spasm, is by far the most important sign, coming probably before the limp and remaining until repair is complete. If an attempt is made to force the limb beyond the limit set by muscular resistance, the whole body follows the movement, and the expression on the patient's face shows discomfort and apprehension. It is always a sign of a sensitive joint, and unless it is the direct effect of injury, indicates disease. In the early stages it is due entirely to reflex muscular spasm, as is shown by its disappearance if the patient is anesthetized, but, of course, as destruction of the tissue goes on in the joint, adhesions and contractions develop which still further accentuate the symptom.

Distortion of the limb may occur early in the disease, and its character depends on the degree of the intensity of the process. If the attack is of a mild variety the limb will be in what is usually described as the first position, namely, flexion, abduction and external rotation. This position may be described as the attitude of disuse. It is the position assumed by perfectly healthy people when tired by long standing, that is, they throw all the weight on one leg, and let the other simply hang out at one side to act as a prop to maintain the body equilibrium. Another explanation of this position is based on the increased tension in the joint. It has been found in the dissecting room, that by filling the joint with water, injected through the bottom of the acetabulum the limb immediately becomes flexed, abducted and rotated outward. The reason is, that in this position the cavity of the joint is increased to its maximum capacity, and is thus accommodated to the increased pressure of the water. Similarly, in tuberculous disease of the hip, the increased tension demands the maximum amount of room in the joint, and as a result the first position is assumed. This latter explanation is probably the correct one for the phenomenon, when the disease has reached the joint itself, but the former accounts very well for the position when the process is confined to the bone.