

other, accompanied by inclination of the body to the unaffected side. As the weight comes on the unsound limb, it is quickly shifted to the sound side. After a period of rest, the lameness and limping in part disappear. Although the lameness is not entirely due to pain, but rather to a dread that putting weight on the affected limb may cause pain, it must be borne in mind that the presence or absence of pain is probably in large measure due to the fact that the seat of the primary inflammation is not always in the same structure. If the patient be examined when resting, especially if lying down, it will be observed that although the general attitude of the body may differ in different cases, the leg will be *flexed* in all cases. If questioned as to the seat of pain, intelligent children will refer it to the knee; it may be to a well-defined spot on the inner aspect of the knee, or all around it. Not infrequently the pain is located on the inner side of the thigh, at the apex of Scarpa's triangle. The distribution of the obturator and anterior crural nerves will account for the pain in these regions, and yet it has been demonstrated that pressure on the exposed head of the femur will cause pain to be felt at the knee alone. Careful manipulation at this stage may reveal slight thickening behind the trochanter major and within the groin. Doubtful as the foregoing symptoms may be as to the precise nature of the trouble, if, in addition, there be found a certain *fixity* of the joint, there can be no question that we have to deal with hip disease.

Too much care and gentleness cannot be exercised in manipulating the limb for the purpose of ascertaining the presence or absence of fixity of the joint. With the patient stripped and lying on the back on a firm mattress or table, a casual examination of the foot, ankle, and knee will secure the confidence of the child. The unaffected limb may be examined by lifting it from the mattress to a position at right angles to the body. The same manœuvre may be tried with the affected limb, and while doing so be careful to observe whether the pelvis remains quiet or moves with the limb. Placing the affected limb flat on the mattress, observe whether the loins are in contact with the mattress or are arched upwards. Again taking the sound limb below the knee, flex the

leg on the thigh, the thigh on the abdomen, adduct, abduct, and rotate the limb, all the time watching the pelvis, which will be observed to be quiet, or nearly so. Taking the unsound limb, repeat the same manœuvres, and it will be seen that the pelvis moves with each motion of the limb, while the head of the femur lies quiet in the acetabulum. This method (Barwell's) will elicit the very earliest sign of disease in the joint.

In the second stage of the malady there are certain "posture symptoms" which are regarded as diagnostic of the affection, though they must not be taken as the only phenomena present at this stage. These symptoms are lengthening or shortening of the limb, on which great stress is laid by some authors as being characteristic of hip disease. When such symptoms are present at an early stage, careful investigation will reveal the fact that they are only apparent, not real, and are dependent on inclination of the pelvis, and are not to be regarded as early indications of the disease. When such symptoms become so marked as to be easily recognizable, the disease has already reached an advanced stage.

To determine whether lengthening exists, let the patient stand with back to the surgeon, clothes raised above the waist. The patient will now stand on the sound foot, with the other in advance, and resting sometimes on the sole, but usually on the toes, with knee bent. There will also be noticed some lateral separation of the limbs, and any attempt at change of position causes him to lose his balance in the endeavor to avoid putting weight on the affected limb without altering the angle between the femur and the innominate bone. It will further be observed that the crest of the ilium is lower on the affected side, and that the spine assumes a curve, with the convexity towards the affected side. Another important symptom characteristic of the disease at this stage is *flexion* due to rigidity of the muscles, the psoas, iliacus, and adductors being in a state of great tension. Wasting of the limb now begins, the pains are more intense and somewhat different in character, and are described as "starting pains." Tumefaction, or swelling, is also a feature of this stage, and is usually preceded by a regular and continuous rise of temperature, which