In many patients the disease began as "catches, like pinching of a nerve" in one or the other hip region, at times radiating anteriorly to the iliac crests or abdomen. A few patients complained of weakness, or a sensation of "giving way" of the hip, alternating from one to the other hip. Radiation of pain to the buttocks, groins or along the posterior or, less often, the lateral aspect of the lower extremities to the knees or ankles occurred in some patients and, in a few, tingling in the toes on walking. In some, the backache was aggravated on coughing, sneezing, lifting weights or on any movement of the spine. The aching in the back at times was so severe that it seemed to "double up" the patient. A few subjects stated that the backache was accompanied by a tightness or "knot" in the abdomen, spasmodic contractions and rigidity of the abdominal musculature. Patients with involvement of the dorsal spine complained or soreness or migratory sharp pains in the chest during respiration and yawning, and had varying degrees of impaired chest expansion. The complaints were generally worse after periods of inactivity and, in some patients, during inclement weather. A few patients dated the onset of aching and stiffness in the low back to a time when they were treated in a hospital for some other apparently unrelated disease, such as gunshot wound, tonsillitis, etc. Three patients had been explored surgically for herniation of the nucleus pulposus at other institutions prior to our observation. A small number of patients had been believed to be psychoneurotic before the nature of their complaints was recognized, the correct diagnosis made and proper therapy instituted. In contrast, a few patients had only minor complaints referable to the spine, despite well developed deformities and advanced radiographic changes. These patients were generally older men in whom the disease was accidentlly discovered while they were in the hospital for the treatment of an unrelated conditon, such as hypertension, coronary artery disease, pulmonary emphysema, etc. Careful questioning of these pateints revealed that in the past they had had only temporary discomfort in the back, consisting of aching and stiffness which did not interfere with the pursuit of their occupation or customary activities.

PHYSICAL FINDINGS

There was considerable variation in the objective findings. In the milder cases, during the early stages of the disease, no abnormal physical findings were noted and, as a rule, no abnormalities were seen on the radiograms. These were diagnosed on subsequent admissions to the hospital when definite objective abnormalities were found and radiographic evidence of the disease developed. In these instances we found the various leg and spinal maneuvers, particularly Lasègue's, Patrick's Gaenslen's and Ely's, and extent of chest expansion, of great help in arriving at the correct diagnosis.[1] Patients in whom the disease was more advanced presented some or all of the following manifestations in different degrees of severity: flattening of the lumbar spine, with partial or complete obliteration of the normal lumbar lordotic curve and exaggeration of dorsal kyphosis; flattening of the chest and impaired chest expansion; tenderness on pressure or percussion over the sacro-iliac joints and vertebral column; varying degrees of atrophy of the muscles of the spine; rigidity and impairment of some or all spinal movements; anterior fixation of the cervical spine; forward crouching deformity of the entire vertebral column, the so-called "poker spine"; and "en masse" movement of the entire spine. One patient had such marked anterior flexion and rigidity of the vertebral column that the longitudinal axis of the head was parallel to the floor. Several patients who had involvement of the hip joints had a characteristic waddling gait, walking with slightly flexed knees, forward-bent body and hyperextended neck, the upper extremities swinging in a plane posterior to that of the body as they shifted the pelvis from side to side with each step.

[1] Lasègue's Maneuver: Flexing the extended lower extremity upon the abdomen and noting the angle of flexion at which the pain in the low back is reproduced.
Patrick's Maneuver: With the patient in the supine position, the leg and thigh are flexed and the lower extremity is abducted and externally rotated at the hip.
Gaenslen's Maneuver: Hyperextension at the hip of the extended lower extremity while the opposite lower extremity is forcibly held by the patient in the knee-chest position.
Ely's Maneuver: With the patient in the prone position, the leg is flexed on the thigh and the lower extremity is hyperextended at the hip.
Chest Expansion: The circumference of the chest is measured at the level of the nipples at the end of full inspiration and expiration.