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The knee is one of the peripheral joints that usually have been involved by ankylosing spondylitis (AS). The clinical characteristics of involved joints usually are tendinitis and synovitis, and the knee is commonly covered with many tendons and synovium, so involved knee joints often have inflammation. The involved knees commonly have severe pain and loss of joint function, which present as joint stiffness or even ankylosis. The involved tendons and ligaments may be contracted, and the elasticity of involved soft tissues usually has different degrees of decline. As to patients with rapid progression or long duration, the muscles that surround the knee joint may have different degrees of amyotrophy, especially in the musculus quadriceps femoris. The ankylosing spondylitis patients with knee involved usually have hip lesions.

The clinical characteristics of ankylosing spondylitis patients with knee involved usually are similar to the patients with hip involved. Commonly there is stiffness or pain in the lumbosacral spine at the early stage, and then the lesion gradually invades to the knee joint which show joint swelling and pain. The range of motion (ROM) of the involved knee may be normal in the initial period and the involved knee usually tends to flex to alleviate pain. At the late stage, the ROM gradually decreases and mostly fix in flexion posture at last. The severe flexion deformity may show as “goose head” subluxation. At this stage, the patients usually could not walk and need assistive devices such as wheelchair to move.

The X-ray shows osteoporosis in the surrounding bone of the knee joint and narrow joint space. The joint space with knee ankylosis disappeared. Since the knee usually was in flexion posture, lateral view is a better choice to check the joint space.

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