

The long bones are generally involved, especially those of the leg: most frequently the inflammation begins near the epiphyseal line. The relative order of frequency of the bones may be given as 1, femur (lower end); 2, tibia (upper end); 3, humerus (upper end); 4, radius (lower end); 5, fibula; 6, ulna: the femur being most frequent; other bones such as the scapula, os calcis and ilium are occasionally attacked.

The pathological processes embrace congestion of the medulla, with deposit of the infective organism, effusion into the Haversian canals, medullary spaces and beneath the periosteum, followed soon by suppuration, of a reddish color, in the medulla which extends to the periosteum by perforating the bone or extending along the blood vessels. The veins become thrombosed, and this is considered to be an important factor in the production of necrosis. The pus in the medulla extends along a considerable portion of the medullary cavity or the whole of it, or may be limited to one part. Inflammation of the soft parts, suppuration and thrombosis of veins follow these changes: while in the bone necrosis of the shaft or of a portion are met with. Still later, should the necrosed bone remain, the familiar condition of new bone formed round it, the involucrum, the openings or cloacæ and sequestrum are observed and hardly require description. Suppuration of a neighbouring joint may supervene and add much to the danger of the disease: here it may be by extension along vessels, or by perforation of the abscess into the joint as in a case which will be referred to. The thrombosed veins may readily give rise to pyæmia.

In most cases, one bone only is involved. Out of 700 cases Funké found but 37 of multiple osteomyelitis.

The *clinical symptoms* vary considerably with the severity of the attack. At the onset, there is a chill followed by elevation of temperature and rapid pulse. In very severe cases, there may be delirium and signs of general sepsis, producing a typhoid condition, before any noteworthy local signs have been manifested, and death may ensue within a week. Generally, however, pain is a marked local symptom, it appears early in the illness, is of an intense character and may diffuse over a wide area. Tenderness on pressure will be found and serves as a valuable guide to the site of the abscess, as it is most severe at the seat of inflammation. Swelling appears about the end of the first week and increases rapidly; that is the deep-seated inflammation makes its way to the surface of the bone in about that time. There is the oedematous swelling, redness and enlarged subcutaneous veins. The neighbouring