

distant organs, producing pyæmia. The disease may spread so rapidly that pus shall be found beneath the periosteum within a day or so from its commencement. Necrosis of the bone is caused by the toxins produced, by the pressure of the inflammatory exudate, and by the arrest of circulation through the thrombosed veins. The pus may fill the whole or part of the medullary cavity, or form several small abscesses in it. The periosteum may be stripped from the whole diaphysis and the bone lie loose, bathed in pus and surrounded by the thickened and inflamed periosteum, as in the first case reported below.

In some cases the infection is so virulent that the periosteum in places may become gangrenous, and the infection spread rapidly to the surrounding soft tissues.

After the active symptoms have subsided new bone may be deposited beneath the periosteum, forming a sheath for the necrosed portion of the bone. In cases where the pus has been evacuated early, more or less of the periosteum may again become attached to the bone, but fistulous openings remain wherever the periosteum has been destroyed.

The symptoms vary in different cases, some presenting much more severe constitutional disturbance than others, though local manifestations may be more pronounced in the less severe cases, but not always so. The following cases are of interest in this connection :

Mary G., a child of four years of age, was admitted to hospital suffering from severe pain in the abdomen; temperature, 104°; pulse, 140; tongue dry, respirations rapid. She was too ill to be able to give us much information and soon became quite delirious. She lay with both knees drawn up as if suffering from peritonitis. Every movement of the limbs or pelvis caused her to shriek with pain, so much so that it was impossible to ascertain where the pain or tenderness was most acute. The abdomen was tense, the spleen enlarged, but the heart and lungs showed no signs of disease. The leucocytes numbered 60,000; the temperature continued high and rose in the evenings to 105° and the pulse to 150 or over. She became rapidly worse. No local swelling could be made out. She was seen by several physicians and surgeons, but we were unable to arrive at an exact diagnosis. She died the fourth day after admission and the post-mortem revealed the left ilium completely separated from the sacrum, pubes and ischium, and lying in an abscess cavity surrounded by the stripped-up periosteum. The left hip joint was also inflamed and contained a slight quantity of pus. The organism present was that most usually found, the *Staphylococcus pyogenes aureus*. Septic infarcts were found in the kidneys, spleen and pleuræ.

As a contrast to the foregoing case may be mentioned two cases, boys of six and seven years, which were seen later, and both admitted the