

in sawing the bone that there was no medulla, and that the bone was exceedingly dense and difficult to saw. It was necessary to make an independent opening over the lower part of the fibula and resect a small portion of that bone before the two portions of the tibia could be brought together. A sinus at the upper end of the original incision being present, this was disinfected and a small drain introduced. The limb was put up in plaster and dressing was changed from time to time.

On January 3rd, 1910, the left leg was found to be $14\frac{1}{4}$ inches long, and the right leg $12\frac{1}{2}$ inches. Circumference at a point six inches above internal malleolus—left leg $8\frac{3}{4}$ inches, right leg $9\frac{1}{4}$ inches.

The destruction of bone and resulting deformity following acute osteomyelitis is sufficiently well known to warrant me in presenting the result of the above case.

Without going into the subject of osteomyelitis in general, I may point out that the disease most frequently shows itself in affections of the femur, the second in importance being the tibia. It occurs most frequently in males, and in the larger percentage of cases before the ossification of the bone. The infection is most commonly caused by the staphylococcus pyogenes aureus, although mixed infections are seen not infrequently associated with the tubercle bacillus.

A beautiful illustration taken from Loxor, reproduced in the American practice of surgery, in the article on inflammatory infections of bone by the lamented George A. Peters, of this city (Toronto), gives a very clear view of the reasons why this disease should cause such destruction when it attacks the long bones. It is because a great deal of the arterial blood supply of the long bones ends in terminal arterioles, and there is not that free anastomosis which is present in many other parts of the body. The case under discussion clinically conforms to the above theories in almost every particular. It shows that the head of the bone, where the blood supply is best and where the periosteum is bound down to the bone or cartilage, resisted the invasion of the disease. It also shows that the shaft was quickly destroyed. During the process of repair it further shows that the latest part of the shaft to repair was at a point half way between the upper and lower epiphyses. You are, no doubt, aware of the various methods which have been adopted, from the transplantation of a whole portion of bone, to the bone clippings used many years ago by Sir William McKeown. Plaster of Paris, catgut, sponge and other materials have been used with varying success and in many instances with total failure.

The case under discussion is a good illustration of the success of the plumbage method. This is the first time I have used extension by weight