

former is often most marked, the latter is rarely so. The former is a symptom which must be combated; the latter ordinarily may be disregarded.

Kyphosis is a danger to the patient in several ways, besides being an unsightly deformity. Beyond doubt its advent is sometimes associated with paraplegia, although this is rarely due to the direct pressure of bone, but rather to effusion or an extension of the inflammation. In the later stages of the disease, through the kyphosis, compression may be exerted on important organs and untoward symptoms may result. Acute or angular kyphosis is more serious than the more rounded variety, as this more frequently tends to cause compression, and in the thoracic region such compression may be followed by acute dilatation of the right side of the heart, and death may ensue. Thus, in treatment, kyphosis must be guarded against by carefully-adjusted apparatus. Rest in the treatment of tuberculous disease of the spine is not sufficient. Rest must be combined with fixation in the hyper-extended position.

The initial position of the tuberculous lesion in this affection is well known to you. The disease is said to begin in the anterior part of the body of a vertebra, adjacent to, and perhaps including, an inter-vertebral disc. These become eroded, and from the superimposed body weight the spine tends to fall forwards,—to become flexed. Now rest to the joint and the prevention of attrition are our main objects in the treatment of a tuberculous arthritis. This is best secured by hyper-extension. This fact is easily demonstrated by examining a cabinet specimen of the spinal column. I shall not enter into the details of treatment in the different regions of the spine by hyper-extension; sufficient is it to say that there is no region of the vertebral column that cannot be hyper-extended, and this without force. Hyper-extension may always be maintained by the use of plaster of Paris or a brace.

Before leaving this subject we should consider the treatment of those patients who are first brought to us with marked deformity. In these, although it is wise to attempt a gradual reduction of the deformity, the use of strong force, such as was recommended by Calot and others, is not advised, but rather is considered bad surgery.

The mechanical principles made use of in the gradual reduction of these deformities, simulate those of a lever. The power is employed at the kyphosis, the resistance over the manubrium and symphysis. When the patient is placed in the best position for fixation, and held in the corrected position, a brace or jacket may be moulded to fit the back. This method is adopted in even the worst cases of deformity, because the eroded parts of the anterior surface of the articular surface of the vertebrae do not tend