

with an aseptic conscience and is not a master of the necessary technique. All rough handling of the bruised and lacerated tissues through too small an incision are to be deprecated. The dangers of operation increase with the depth of the bone from the surface on account of the amount of manipulation required.

(4) The general state of health, habits, age and resisting powers of the patient must be accurately measured. Old age, however, in itself is no contraindication to operation.

(5) After operation, when the fragments of the bone have been firmly secured, extension is seldom necessary; tight splinting with the dangers of ischemic paralysis is not called for; a rapid restoration of function by early passive movements is made possible, and much suffering and inconvenience is thereby prevented.

(6) The indications for operation vary greatly with the particular bone broken, the character of the break and its position in the bone.

It has been the common practice for a long time to operate on fractures of the olecranon process, patella and the tuberosity of the os calcis, on account of the impossibility of approximating the fragments by any other method. This also applies to fracture-dislocations of the spine and depressed fractures of the skull. Operation is rarely called for in transverse fractures of the shafts of bones, as they can usually be treated by properly applied splints or by extension. When the fracture is oblique or spiral in direction of the shaft of a long bone and especially when a portion of muscle intervenes between the ends, operation holds out the best hope of success. Certain fractures, as those of the clavicle, except for cosmetic reasons, and those of the bones of the hands and feet, and fractures of superficially placed bones, as in Colles' fracture, rarely call for operative interference. Separation of the tuberosities of the humerus and tibia are far better treated by an open operation.

When a fracture takes place close to, or into a joint cavity, operation is strongly indicated. This is necessary on account of the difficulty of otherwise getting the fragments in anything like accurate apposition, if indeed it is possible, or for the purpose of removing small fragments, or to minimize the amount of callous, which will inevitably be formed and seriously interfere with the movements of the joint or even result in ankylosis. This is particularly true in fractures of the upper extremity of the humerus, especially if complicated by dislocation of the head of the bone, and again in fracture of the lower end of the humerus or of the femur, involving the elbow or knee joints.