

6 REDUCTION OF FRACTURE

Semi-Open Reduction

Suppose that we are dealing with a transverse fracture of the mid-shaft of the tibia. It appears that the bone can be pinned as a closed procedure, but for some uncanny reason each time the pin is driven across the fracture line it has a tendency to pass into the soft tissues instead of into the medullary cavity of the distal fragment.

To continue to repeat this procedure might result in serious harm. The surgeon feels, then, if he could have just one finger in contact with the bone at the fracture area, that he could line the bone up sufficiently so that the pin would be guided into the lower fragment without difficulty. This is exactly what he should do. By making a one-inch incision through the skin and fascia, the blunt-nosed artery forceps can be plunged through the muscle into the hematoma about the fracture. The blades of the artery forceps are spread open sufficiently to evaluate the clot and to allow the operator to introduce one palpating finger. By such a procedure the trauma of the operation is not increased. The surgeon then by using this, the tip of his palpating finger as his eyes, realigns the bone, and an assistant drives the pin across the fracture line. This is what we mean by **semi-open reduction**.

Gross dissection is rarely necessary for any recent shaft fracture. The femur requires two-finger manipulation. In the humerus and tibia, one finger will do the job. The forearm is more difficult and may require manipulation with a small periosteal elevator.

Semi-open reduction safeguards against nerve damage and preserves the healing potentialities of the bone.

