SUMMARY

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Fracture of the fixation device had been a fairly common complication of fracture treatment in the past. With better understanding of the function of the device (it is a temporary splint until skeletal union is achived) and with the improved metallurgy it is a rare occurrence.

In Spite of its rare occurance, it is one of the most important complications of surgical fracture treatment. The purpose of this work is to draw attention to the problem and to calrify its ateiology, as a primary and essential step prophylactic measures to avoid its occurrence.

The implant materials which are used in the clinical practice for orthopaedic surgery has been discussed with special reference to metals and their mechanical properties.

The biomechanical aspect of plate and screws as the most common method of internal fixation has been discussed with special reference to AO plates and screws.

The classification of the causes of implant falure has been mentioned with special reference to the stages of fatigue failure of the plate and the different types of carrosion of metals.

In discussing the prophylactic measures to avoid implant failure, concentrated on the proper time of surgery, the importance of preoperative planning and proper technique of reducing the fracture and applying the plate. Post operative care has been discussed with special reference to weight bearing and radiological follow up.