
Conservative treatment of fractured tibial condyles

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Fractures of the tibial plateau are relatively common. Despite of this, their treatment has been surrounded in controversy. Before discussion of the different methods of treatment, the anatomy of the knee, the trabecular pattern of the cancellous bone of the tibial condyles and the most of the pathological classifications were described. Tibial plateau fracture present in many form according to the magnitude of forces applied, their directions and the position of the knee joint at the moment of injury. The different methods of diagnosis were reviewed. In the literature of the treatment of tibial plateau fractures controversy and divergence of opinion have been constant features starting with classification and ending with the results. The conservative methods of treatment can take the form of traction or cast brace with early mobilization or cast immobilization. The present study discussed the different conservative methods of treatment of the fracture tibial plateau. 11560 cases of recent fractures of one or both tibial condyles treated by one of the different conservative methods of treatment (cast brace, early mobilization, cast immobilization or skin or skeletal traction with early mobilization). The follow up results of these cases were evaluated functionally according to knee chart assessment by Rasmussen (1973) which was beneficial in the conclusion.

- 1- The acceptable results were more with the younger age of the patients and more with males.
- 2- The degree of initial depression of the articular surface did not affect the functional results much in this series, and was not as important as the amount of residual varus or valgus malalignment.
- 3- The use of traction and early mobilization served the following:
 - a. moulding of the fractured tibial condyle precisely to the shape of the condyle of the femur.
 - b. helping in regaining movements and power.
 - c. filling the depressed area by fibrocartilage.
 - d. protecting from knee stiffness.
 - e. early mobilization of the knee is the key to restoration of maximum joint function.
- 4- The use of cast bracing provided a step forward in the treatment of fracture tibial plateau by shortening of the bedrest and early weight bearing and provided more acceptable results.
- 5— Accurate comparison between the series reported by different authors and its results is not possible. Not only are the fractures subdivided in slightly varying ways according to type and severity, but more important, the words used to express the results are given different meanings. Classification into "excellent" "good" "fair" and "poor" is a matter for judgment, and judgment is an art rather than an exact science. From the analysis of the complications that occurred in this series we concluded the following:

1. The highest incidence of limitation of

movements was in bicondylar fractures and the lowest with fractures of the medial condyle, due to more involvement of the articular surface .2.The highest incidence of axial deviation was in fractures of the medial condyle and the lowest was in fractures of the lateral condyle, was due to more collapse of subchondral bone during healing of the fractured medial condyle.3.Lack of full extension is more with bicondylar fractures due to the severe trauma and more injury to the soft tissues.1174.The highest incidence of residual pain was in bicondylar fractures and in patient who developed other complications especially patello femoral friction and limitation of range of motion.5.The highest incidence of patello femoral friction and arthritis was in bicondylar fractures due to more involvement of articular surface and more severe trauma.6.The instability of the extended knee was due to collapse of the subchondral bone during healing of the fracture.7.Limitation of flexion was due to knee swelling and intra-articular and post traumatic patello femoral arthrosis.