Neglected Fracture Neck of Femur: Its Staging/ Classification and its Role in Predicting the Outcome of Treatment by Osteosynthesis

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Abstract

In a retrospective study of 500 patients of femoral neck fracture of more than 3 weeks duration treated by various operative procedures aimed at preserving the hip joint, it was observed that the results of these procedures were influenced by changes which had occurred at the fracture site with passage of time. These changes were a) The fracture surface became smooth and cortical. b) The femoral neck got absorbed resulting in increase in the fracture gap and decease in size of the proximal fragment. c) The femoral head in some cases started showing radiological signs of avascular necrosis. Based on these changes the fracture was staged/classified into stage I, II, III. When this staging was applied to the 500 patients operated by different procedures in the retrospective study it appeared to be appropriate and of predictive value. In a prospective study, 202 patients of femoral neck fracture of more than 3 weeks duration. 53 in Stage I, 140 in stage II, and 9 in stage III were treated by closed reduction and internal fixation with cancellous screw and the free fibular graft. The fracture united in all the 53 patients in stage I, in 125 out of 140 in stage II and 3 out of 9 in stage III. On an average follow up of 7.25 years (range2-16 years) it was observed that the hip joint achieved highly satisfactory function and the joint remained free of symptoms in 171 (95%.) patients.