

Management Of Crescent Fracture-Dislocation Of The Sacroiliac Joint: Iliosacral Screws Versus Plate Fixation

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Objective: This study was to compare clinical, radiological and functional outcomes after fixation of crescent fracture dislocations of the SIJ using iliosacral screws versus plate fixation.

Methods: A clinical study was conducted with the aim of assessing the clinical results and functional scores of 64 patients, 50 males and 14 females, age range 16 to 64 years who sustained 66 Lateral compressions pelvic fractures (two patients sustained bilateral fractures). The classification by Day et al 2007 was used with three distinct types of crescent. Percutaneous iliosacral screws (IS) were used alone in 20 fractures; a plate in 43 fractures and 3 fractures were fixed with both plates and IS screws. LCII (lateral compression screws) were added in 2 cases. Average Follow up period was 40.6 months (Range 4 – 126 months). Two patients died and 1 patient was lost to follow up.

Results: Intraoperatively, there was no significant blood loss in cases of IS screws; the average blood loss in ORIF using the plates cases was 750cc (range 200 - 1300cc). The operative time was shorter for IS screws; 40 minutes (range 30mins to 60 minutes) than plates 110 minutes (60-180 minutes), the difference was statistically significant with a p value of < 0.031 . Majeed score was used for functional evaluation and the mean score for the 61 patients was 83.93 points, (range 53 - 100 points). The average Majeed score for the group fixed with plates was 86.8 points range (66-100), which was lower than the majeed score for (IS) screws, which was 87.6 points range (53-97), but the difference was not statistically significant with a P value of 0.664. The average Majeed score for cases fixed with plates and (IS) screws was 86.7 points (90-93).

Discussion & Conclusion: Percutaneous IS screw fixation is a good option for types II and III crescent fractures, with less blood loss and shorter operative time than the plate option. The functional outcome of the cases fixed with IS screws was better however the difference was not statistically significant.