Treatment of APC II Pelvic Fractures: Variables That Affect the Outcomes

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Purpose: Pelvic fractures are frequently associated with high-energy trauma. Mortality varies from 5% to 46%. In patients with unstable pelvic ring fractures, the factors related to poor outcomes are still controversial. The purpose of this study is to evaluate which variables affect the long-term outcomes of the treatment of an anterior-posterior compression type II pelvic fracture (APC II; AO/OTA: 61B2.3).

Methods: In this retrospective study with Level-III evidence between 2014 and 2018, 79 cases were analyzed and 23 patients remained for evaluation according to inclusion and exclusion criteria. We evaluated pelvic radiographs (AP, inlet, and outlet) and CT scans. Young and Burgess classification was used to define fracture pattern and Majeed score for clinical results. The following variables were analyzed: treatment at emergency, associated injuries, delay for definitive fixation, method of fixation, quality of immediate postoperative reduction, and surgical site infection. Each variable was studied and compared with the Majeed clinical score between groups (Student t test).

Results: We did not find any statistically significant association between the type of treatment at emergency and the long-term clinical outcome. No statistically significant association was found between the clinical outcome and the associated injuries. Patients with less than 7 days of delay to surgery obtained better functional results. Better functional results were obtained in patients who were treated with a pubic plate fixation combined with posterior percutaneous sacroiliac screws. Better functional results were obtained with postoperative reduction of less than 1 cm. Patients with surgical site infection obtained poorer functional results.

Conclusion: The variables cited (delay for definitive fixation, method of fixation used, quality of immediate postoperative reduction, and surgical site infection) in patients with APC II pelvic fracture had a strong relation with long-term functional and clinical outcomes.



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