Original Paper

Blood loss and need for transfusion assessment in open reduction and internal fixation of femoral shaft fractures

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Abstract

Background and Objective: A high percentage of patients with multiple traumas sustained at least from an orthopedic problem. One of the high frequent lesions was femoral shaft fracture. The aim of this study was to determine the amount of bleeding and the need for blood transfusion in femoral shaft fractures and risk factors.

Methods: This descriptive, retrospective study was done on 84 patients with femoral shaft fractures whom were operated in Imam Khomeini Hospital in, Sari, in northern Iran during 2012-15. Age, sex, comorbidities, type of fracture, hospitalization period, pre and post-operative hemoglobin and blood unit's loss were recorded for each patient.

Results: In 43 patients (51.19%) plate and in 41 patients (48.80%) intramedullary naling were used for treatment of fractures.13 (15.47%), 33 (39.28%) and 37(44.04%) of patients were received one, two and three blood units, respectively. There was no significant relationship between energy intensity and age. There was significant relationship between the intensity and the type of fracture ($P<0.05$). A significant correlation existed between blood unit transfusion with sex, fracture type, hemoglobin before surgery and fracture energy intensity ($P<0.05$).

Conclusion: Based on the results of this study, it is recommended for hip fracture at least 3 units of blood should be reserved.

Keywords: Femoral shaft, Fracture, Blood transfusion

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