Abstract The purpose of this study is to evaluate superiority and results of open technique in the treatment of femoral shaft fracture with interlocking intramedullary nailing. The retrospective study is designed to evaluate results of our technique. In this study, the patients that were admitted to the Orthopedics and Traumatology Department of University Hospital that is third level of trauma center. We claim that open technique is not a disadvantage during union process over closed technique in treatment of femoral shaft fracture with interlocking nailing. In this study, 44 patients that were consulted for adult femoral shaft fracture between January 2008 to July 2010 were included. Patients with open fractures, gunshot wounds, neurovascular injuries, and patients that did not have isolated femoral diaphysis fractures were excluded from the study. Clinical and radiological results of the patients were checked periodically. The open interlocking intramedullary nailing was used in treatment. Complete union rate was 90.9% in 40 patients who were treated with open interlocking intramedullary nailing for adult femoral shaft fracture, and nonunion rate was 9.1% in four patients. Mean union time was 18.3 weeks (12–36-weeks). Evaluation of 44 patients according to Thoresen criteria was excellent in 22 patients, good in 6 patients, and
bad in 4 patients. We think that open technique is an acceptable
technique because all results of our study were similar to
results of closed intramedullary nailing technique in literature
and some advantages of open technique over closed

Keywords Open technique . Interlocking intramedullary
nailing . Femoral shaft fracture . Nonunion