

Pelvis and Acetabular Fractures: Patterns, Etiology, Management, and Early Outcomes at a National Trauma Hospital in Eldoret, Kenya

Victor Kipkemei Bargoria, MD

Moi University /Moi Teaching and Referral Hospital, Eldoret, Kenya

Purpose: We undertook to describe the epidemiology, etiology, and management options of pelvic and acetabular fractures at a Level VI teaching and referral institution in Kenya, Africa. The hospital recently set up a 24-hour trauma unit, which has made it popular in the region for patient care. Pelvic and trauma cases presenting to the center have also significantly increased. Due to the complexity of these injuries, surgeons have had to seek specialized training and conduct research in order to achieve good outcomes.

Methods: This was a descriptive cross-sectional study evaluating all adult patients who presented with pelvic and acetabular fractures in the trauma unit. Data were collected using an interviewer-administered questionnaire. Radiographs were analyzed, and diagnosis and standard care administered.

Results: The mean age of presentation was 35.56 ± 12.14 years. There was a male preponderance of 70%. The etiologies were motor vehicle accidents (49%), motorized two-wheelers (33%), falls from height (11%), collapsing buildings (6%), and gunshots (1%). Among the pelvic fractures, the vertical shear pattern was 37%, anteroposterior compression 24%, lateral compression 17%, and combined mechanism 22%. Among the acetabular fractures the proportions were posterior wall (56%), posterior column and wall (16%), transverse and posterior wall (13%), posterior column (9%), and T-type (6%). Open reduction and internal fixation using the standard approaches was the mainstay of definitive management. Reconstruction plates and screws were the most popular choice of implants. External fixators were used definitively for open pelvic fractures.

Conclusion: The young productive male patients were the ones most afflicted. They are primarily the group in the population that is actively on the move trying to provide for their families and communities. Family distress and poverty has been witnessed following such occurrences. Poor safety standards within the public transport systems and motorbike safety is a major contributor in the occurrence of these severe pelvic injuries. Local biomechanical/crush studies should be conducted in order to inform policy. Acquisition of skill in the management of pelvic and acetabular fractures should be encouraged and invested in order to have good outcomes. Although associated with a relatively high mortality and morbidity, the majority of patients in the study had satisfactory short-term outcomes. More extensive long-term outcomes should be examined in the future. National or regional registries on pelvic and acetabular fractures should be established as this would encourage sharing of knowledge among surgeons in Kenya, Africa, and the world at large.