

Unreduced Knee Dislocations: Characteristics and Management of Transferred Cases from Outside Hospitals

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INTRODUCTION: Acute knee dislocations are rare but potentially devastating injuries that require immediate recognition and reduction to prevent limb-threatening complications. Despite the need for prompt care, patients are often transferred with unreduced knees, delaying intervention. This study evaluates the incidence, patient characteristics, and outcomes associated with delayed reduction in transferred knee dislocation cases.

METHODS: We conducted a retrospective cohort study of 54 patients diagnosed with knee dislocation (ICD-10 code S83.1) between 2018 and 2023 at a Level I trauma center. Of these, 27 were transfers from outside institutions. Data collected included patient demographics, mechanism of injury, timing of reduction, presence of vascular or neurologic injury, and clinical outcomes. A case series of three representative patients was included to illustrate the consequences of delayed care.

RESULTS: Among 54 patients with an ICD-10 code for a knee dislocation, 41 patients (75.9%) had a confirmed knee dislocation on x-ray imaging. The average age of this cohort was 38 years, with 25 males (61.0%) and 16 females (39.0%). Racial distribution included 31 White patients (75.6%), 9 Black patients (22.0%), and 1 American Indian patient (2.4%). The average BMI was 33.2. Of the 41 patients, 24 (58.5%) were transferred from outside institutions. Among these, 11 (45.8%) were transferred with a dislocated knee, 5 (45.5%) had an associated popliteal artery injury, and 3 (27.3%) experienced limb loss. Of the 13 transferred patients whose knees were reduced prior to arrival, 2 (15.4%) had a vascular injury and 0 (0.0%) had limb loss. Among the 17 patients initially seen at our institution, 5 (29.4%) sustained a vascular injury and 1 (5.9%) had limb loss.

DISCUSSION AND CONCLUSION: Unreduced knee dislocations transferred from outside institutions were associated with higher rates of vascular injury and limb loss, highlighting the importance of early recognition and reduction.