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**“The Role of Interventional Radiology in Pediatric and Adolescent Trauma: A Review of Current Practices at a Level 1 Trauma Center”**

**Objective:** Acute trauma management requires a multi-disciplinary approach. Interventional radiology procedures (IRPs) have a well-established role in adult trauma. However, the role of IRPs in pediatric and adolescent trauma is less well-defined. This study assessed outcomes in trauma patients <18 years who underwent IRP.

**Methods:** We performed a retrospective review of trauma patients <18 years at a Level 1 trauma center from 2018 to 2022. Primary outcomes were in-hospital mortality, length of stay (LOS), and procedural complications. Data on transcatheter-arterial embolization (TAE) and drain placement were collected and stratified by mechanism of injury (MOI). Values are reported as mean±SE. Univariate analyses compared the groups.

**Results:** Twenty patients (18/20, 90% male) were included. Blunt trauma (N=9) patients were younger than penetrating trauma (N=11) patients (12.3±1.7 vs. 16.0±0.2 years, p=0.03). TAE was more frequent in blunt (89% vs. 18%, p=0.006), while drain placement was more common in penetrating trauma (82% vs. 11%, p=0.006). Penetrating trauma had a higher incidence of fluid collection as an indication (82% vs. 11%, p=0.006). Time to first IRP was shorter in blunt compared to penetrating trauma (65.4±50.2 vs. 192.8±32.2 hours, p=0.04), likely due to acute indications for TAE. Hospital LOS before discharge or transfer to a secondary facility was shorter for blunt than penetrating trauma (6.8±2.1 vs. 16.6±2.1 days, p=0.0043). No complications or in-hospital mortalities were observed.

**Conclusion:** IRPs offer adjuncts to surgical care in pediatric and adolescent trauma. This study contributes to the existing knowledge gap. Future multi-center studies are needed to strengthen our findings.