

RENAL ARTERY ANGIOGRAPHY IN PEDIATRIC TRAUMA USING A NATIONAL DATA SET

Angelena Edwards, Catherine J Chen, Niccolo M Passoni,
Bruce J Schlomer, Micah A Jacobs

PURPOSE OF STUDY

- This study uses the National Trauma Data Bank (NTDB), to evaluate renal outcomes after **renal artery angiography** in the setting of renal trauma.
- Hypothesis: Pediatric patients undergoing renal artery angiography for renal trauma are unlikely to require additional urologic interventions.

STUDY DESIGN

- Children ≤ 18 years old with renal trauma from 2012 to 2015
- Abbreviated Injury Score (AIS) codes were converted to American Association for Surgery of Trauma (AAST) grades.
- Patients undergoing renal artery angiography, and additional renal interventions such as nephrectomy, partial nephrectomy, percutaneous nephrostomy tube or ureteral stent placement were identified using ICD-9 codes.

PATIENT POPULATION

536,379
Pediatric
Trauma
Cases

**4,506 Renal
Injury**

87 had
Renal artery
angiography
(ICD-9 88.45)

Mechanism of Injury:

87% (n=76) blunt
9% (n= 8) penetrating
3% (n=3) unspecified

6 AAST Grade I

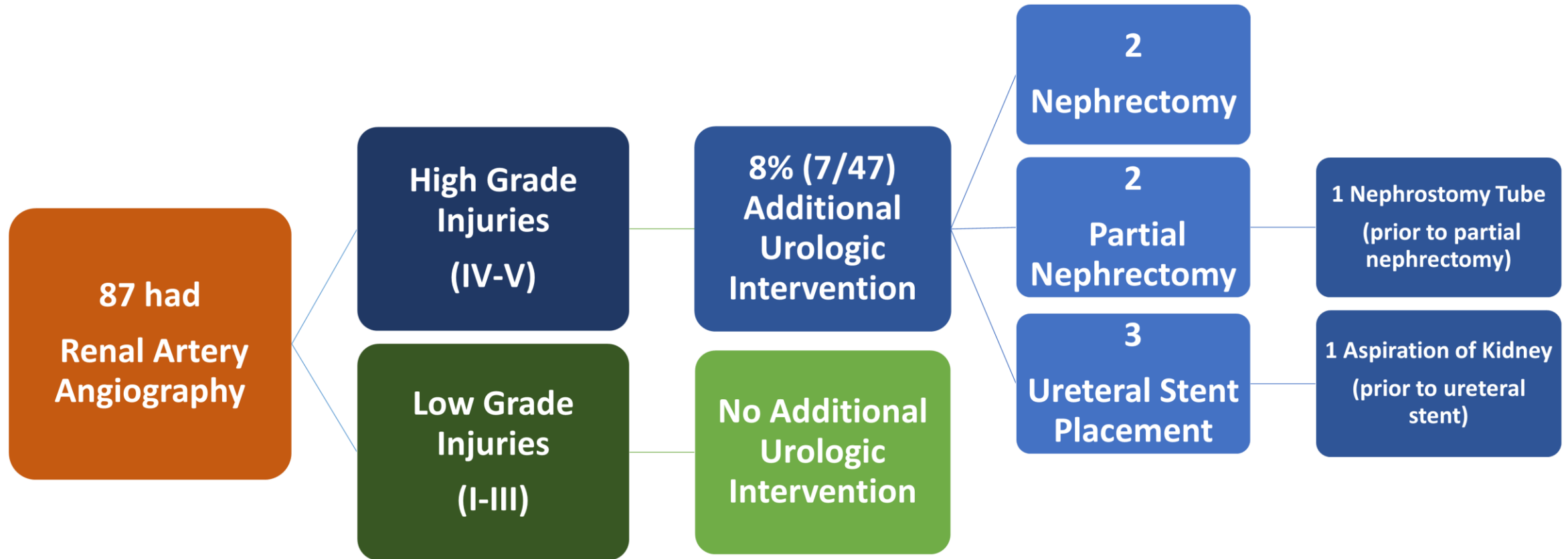
10 AAST Grade II

24 AAST Grade III

37 AAST Grade IV

10 AAST Grade V

REQUIRED ADDITIONAL UROLOGIC INTERVENTION AFTER RENAL ARTERY ANGIOGRAPHY



CONCLUSIONS

- Renal artery angiography remains an uncommon procedure used in the treatment of pediatric renal trauma.
- Additional urologic procedures were only seen in higher grade injuries following renal artery angiography in the setting of pediatric renal trauma.

Thank you