Anterior Urethral Valves – A Rare but Challenging Congenital Pathology

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Anterior Urethral Valves

- Anterior urethral valves (AUV) and associated anterior urethral diverticuli (AUD) are a rare cause of congenital lower urinary tract obstruction

Study Objective

- To evaluate the management and outcomes of patients with anterior urethral valves
Methods

• IRB-approved retrospective chart review (2002-2017)
• Patients undergoing transurethral ablation of anterior urethral valves

• Comparison population
  – Previously studied cohort of 104 posterior urethral valves (PUV) patients at our institution
Results (n = 8)

- Timing of diagnosis
  - Prenatal – 3     Neonatal – 3     Delayed – 2

- All underwent primary transurethral valve ablation
  - Laser – 1       Cold Knife – 4     Cautery – 3

- 50% with residual valves
  - All underwent repeat valve ablation
  - 2 required urethroplasty
Comparison to PUV cohort

• Need for repeat valve ablation
  • AUV patients - 50% (4/8)
  • PUV patients - 15% (16/104)

• CKD Progression
  • AUV patients – 12.5% (1/8) progressed to at least CKD Stage IIIA
  • PUV patients – 20.2% (21/104) progressed to stage IIIA
    8.6% (9/104) progressed to ESRD
Conclusions

• Due to the lower incidence of AUV patients, it is difficult to fully characterize these patients

• Majority of AUVs patients have a different phenotype and are diagnosed later compared to patients with PUVs

• However, patients with AUVs do seem to require more aggressive surgical treatment for complete resolution