Retractable Foreskin Reduces Urinary Tract Infections in Infant Boys with Vesicoureteral Reflux

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RESULTS

- Children with vesicoureteral reflux (VUR) are at risk for urinary tract infections (UTI)
- Circumcision reduces UTI risk in boys under 12 months of age
- Objective: to determine whether retractable foreskin reduces UTI risk in boys with VUR

We prospectively followed 94 boys under 12 months old with VUR for a 2-year period
- Boys with foreskin were placed on continuous antibiotic prophylaxis and offered topical steroids with manual foreskin retraction
- 21% (16 of 78) of uncircumcised boys with VUR developed a UTI compared to no (0 of 16) circumcised boys (p=0.04)
- 2-year UTI rate decreased with decreasing phimosis grade (p=0.03)
  - None (0 of 9) of the boys with phimosis grade 0-2 had UTI
  - 12% (2 of 16) of boys with phimosis grade 3 had UTI
  - 26% (14 of 53) of boys with phimosis grade 4-5 had UTI
- None (0 of 9) of the boys with phimosis grade 0-2 developed a UTI during follow-up
- Only 1 of 9 of boys whose phimosis decreased to grade 3 developed a UTI during follow-up
- Phimosis grade and circumcision status changed over time
- Phimosis grade is an independent risk factor for UTI in boys under 12 months with VUR
- Phimosis is a modifiable risk factor to reduce UTI rates
- Retractable foreskin offers similar UTI risk reduction compared to circumcision in boys under 12 months with VUR