**Presenter:** NICHOLAS BHOJWANI, MD  
**Title of Abstract:** Efficacy of MR urography in evaluation of pediatric urinary tract  
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**Modality:** MR  
**Organ System:** GU  

**Purpose:** To assess the efficacy of MR urography as a single imaging technique for evaluation of the urinary tract in infants and children. **CONTENT ORGANIZATION:** MR urography is a single step imaging modality for evaluation of the urinary tract of infants and children. It has the advantages of not exposing the children to ionizing radiation. But the imaging technique is challenging due to the small body size, inability to breath hold and need for sedation or anesthesia. **Technique:** All patients received IV saline (10ml/kg) and Furosemide (1mg/kg) about 15 minutes before IV gadolinium administration. Pre gadolinium images include axial and coronal T2 Haste; 3D T2 weighted coronal images with fat saturation, Post gadolinium serial coronal T1 3D gradient echo (VIBE) images in arterial, venous and delayed excretory images up to 5-10 minutes. Axial and sagittal T2 FSE of the pelvis in selected children with ectopic ureteral insertion and for associated anomalies of genitor urinary tract. This is a review of our experience over 5 years in the utility of MR urography in evaluation of urinary tract of infants and children from 6 months to 5 years of age. The indications include evaluation of hydronephrosis, recurrent UTI and evaluation of congenital malformations. **MAJOR TEACHING POINTS:** MR urography technique and its challenges, indications and imaging features as well as pitfalls.