Calcified Deflux
Joseph Junewick, MD FACR
08/28/2013

History
Female toddler with vesicoureteroreflux treated with deflux.

Diagnosis
Calcified deflux.

Additional Clinical
Normal renal size with no hydronephrosis.

Discussion
Deflux® is a biological implant composed of highly viscous gel of dextranomer microspheres in a carrier gel of nonanimal stabilized hyaluronic acid. The dextranomer microspheres range in size between 80 to 250 microns, with an average size of about 130 microns. The stabilized hyaluronic acid acts mainly as a carrier, leaving the dextranomer microspheres at the implant site. Deflux is a commonly used compound in the endoscopic treatment of vesico-ureteric reflux. Deflux is injected into the submucosal intraureteral space and tracks along the length of the detrusor tunnel, resulting in a coapted ureteral tunnel and decreased vesicoureteral reflux. Deflux is typically inert but can occasionally provoke inflammation and subsequently dystrophic calcification. Calcification is reported to occur in 2% of patients with a lead time of approximately 4 years. Calcified Deflux may be difficult to differentiate from distal ureteral stones especially when associated with hydronephrosis.

Findings
FL-Spot image from VCUG shows high grade reflux during the filling phase. US-Follow up ultrasound examination to assess renal growth shows focal calcifications at the expected ureteral insertions in the bladder trigone.

Reference

Contributor
Ellen Junewick
Disclaimer
This teaching site is partially funded by an educational grant from GE Healthcare and Advanced Radiology Services, PC. The material on this site is independently controlled by Advanced Radiology Services, PC, and GE Healthcare and Spectrum Health have no influence over the content of this site.

Content Download Agreement
The cases and images on this website are owned by Spectrum Health. Permission is granted (for nonprofit educational purposes) to download and print materials to distribute for the purpose of facilitating the education of health professionals. The authors retain all rights to the material and users are requested to acknowledge the source of the material.

Site Disclaimer
This site is developed to reach healthcare professionals and medical students. Nothing this site should be considered medical advice. Only your own doctor can help you make decisions about your medical care. If you have a specific medical question or are seeking medical care, please contact your physician.

The information in this website is provided for general medical education purposes only and is not meant to substitute for the independent medical judgment of a physician relative to diagnostic and treatment options of a specific medical condition.

The viewpoints expressed in these cases are those of the authors. They do not represent an endorsement. In no event will Advanced Radiology Associates, PC, Spectrum Health Hospitals (Helen Devos Children's Hospital) or GE Healthcare be liable for any decision made or action taken in reliance upon the information provided through this website.