

**ECHO-ENHANCED VOIDING UROSONOGRAPHY: AN ATTRACTIVE TECHNIQUE
FOR DIAGNOSING VESICoureTERIC REFLUX**

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X-ray and radionuclide voiding cystography are standard methods for diagnosing vesicoureteral reflux (VUR). In this work we present our preliminary experience using echo-enhanced voiding urosonography for this purpose. Patients and methods: after catheterization the bladder is filled with normal saline. A conventional ultrasound scan is performed. Echo-enhancing medium (Levovist, Schering) is prepared at the concentration 300 mg/ml. The contrast is injected slowly in the bladder using small portions of 1-2ml until achieving good visualization of the microbubbles. Retrovesical space and the both kidneys are scanned alternatively using harmonic option. The diagnosis of VUR is established if microbubbles of the contrast are visualized in the ureters or in the pelvicaliceal system during the filling phase, voiding and postvoiding. The reflux is graded as mild moderate and severe. Results: There were 20 children (16 females), aged 3 months-14 years. Vesicoureteral reflux was detected in 8 children or in 14 out of 40 nephroureteral units (NUU). It was bilateral in 6 children and unilateral in 2. The severity of VUR was as follows: mild 6 NUU, moderate 7 NUU, and severe 1 NUU. Conclusion: Echo-enhanced voiding urosonography is an attractive non-ionizing method for detection of VUR. Harmonic option improves diagnostic accuracy of the method.

