

Intraoperative cystography pre- and post-endoscopic treatment for vesicoureteral reflux: Guaranteed success?

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Abstract

Objective: This study was designed to investigate whether post-endoscopic treatment (ET) intraoperative cystography is predictive of treatment outcome.

Patients and methods: Patients diagnosed with vesicoureteral reflux (VUR) and treated endoscopically with polyacrylate/polyalcohol copolymer or dextranomer hyaluronic acid were studied prospectively between August 2009 and April 2011. Slow infusion pre-ET cystography was performed under anesthesia. Post-ET cystography was performed only if the intraoperative pre-ET results demonstrated VUR.

Results: Over a period of 20 months, 23 patients were studied (18 girls, five boys), with an average age of 41.9 months (range 13 months–11 years). Thirty-two renal units with reflux were treated: nine bilateral cases, seven right, and seven left. The distribution of reflux grades was as follows: two grade I, 10 grade II, 11 grade III, nine grade IV. All injected ureters demonstrated grade 0 hydrodistention after the procedure. Twelve of 23 of the pre-ET cystography results were negative for VUR, indicating that the sensitivity of this test is 47% compared with the preoperative voiding cystourethrography (VCUG) or nuclear cystogram. There were no procedure complications.

Conclusion: Of all patients (n = 23), nearly 60% did not demonstrate pre-ET VUR on intraoperative cystography. If a postoperative VCUG had been performed on all patients, more than half would have received unnecessary radiation. Therefore, this study demonstrates that post-ET cystography does not predict the success of ET of VUR intraoperative. Pre-ET cystography under general anesthesia before ureteral injection, has very low sensitivity, creating false-negatives that may complicate the interpretation of post-ET cystography. We suggest that intraoperative cystography before and after ET fails to show clinical utility and should not be used to predict the outcome of endoscopic VUR treatment. (C) 2014 Journal of Pediatric Urology Company. Published by Elsevier Ltd. All rights reserved.

Keywords

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