

SVII3: CONTRAST-ENHANCED UROSONOGRAPHY EVALUATING RESULTS OF VANTRIS INJECTION IN CHILDREN WITH VESICoureTERAL REFLUX. IS VANTRIS STILL A REALLY SAFE BULKING AGENT?

Paweł Osemlak*¹, Magdalena Woźniak², Agata Pawelec², Agnieszka Polska², Agnieszka Brodzisz², Paweł Nachulewicz¹ and Paweł Wieczorek²

E-mail: Paweł Osemlak — posem1@poczta.onet.pl

¹The Chair and Clinical Department of Pediatric Surgery and Traumatology, Lublin, Poland; ²The Department of Pediatric Radiology, Lublin, Poland

Background Endoscopic injection of bulking agent in children with vesicoureteral reflux (VUR) is a commonly used method, alternative to long-lasting antibiotic prophylaxis of urinary tract infections (UTI) and anti-reflux operations. This treatment is constantly upgraded with use of newer substances in order to improve its efficiency. The last one is polyacrylate polyalcohol copolymer (Vantris®), considered in the new literature as the most effective. The aim of the report was to evaluate usefulness of intra- and post-operative contrast-enhanced urosonography (ce-US with SonoVue®) in determining early and long-term results of treatment with Vantris of children with VUR.

Materials and methods Study group comprised 92 children (70 girls and 22 boys, mean age 3 years) who underwent endoscopic treatment of VUR with Vantris from 2013 to 2016. Among of them 45 had bilateral reflux, so we treated 137 renal units in general. Criteria for endoscopic treatment were: primary, passive VUR grade II – V (non-responsive to 12-months lasting observation), recurrent UTI and nephropathic scarring in radionuclide scans (RSCT). During cystoscopy Vantris was injected under mucosa of ureteral orifice with ce-US control. When reflux was still present we introduced second bolus of Vantris and controlled with ce-US. Post-operative diagnostics consisted of: ultrasound evaluation of upper urinary tract in 24 hrs after cystoscopy, regular urinalysis, ce-US in 3 and 12 months after cystoscopy, RSCT in 12 months after cystoscopy. Control group comprised 40 children (74 renal units) treated previously in our Department with other bulking agent.

Results Study group. Good long-term result (100% efficiency after 12 months) was achieved in 90% of cases. In 3 children (3,2% of cases) we noted severe complications in form of chronic distal ureteral stenosis. In 2 of them it evoked oliguria and life-threatening urosepsis. In 1 child it led to big deterioration of renal function. All those children needed open surgery with ureteral reimplantation.

Control group. Good long-term results (100% efficiency after 12 months) was achieved in 64% of cases. No child suffered from chronic distal ureteral stenosis.

Conclusions 1. Intra- and post-operative contrast-enhanced urosonography allows to increase efficiency of endoscopic treatment of children with VUR and to limit the use or completely eliminate x-ray studies.

2. Vantris is characterized by significantly higher efficacy in treatment of children with VUR than other bulking agents, but you must always have in mind the possible side effects.

Key words vesicoureteral reflux, vantris, urosonography, children