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Results: 4/16 patients showed good/sufficient distention of the jejunal loops before and in 10/16 after Erythromycin. 6/16 had good/sufficient distention of the terminal ileum before and 14/16 after Erythromycin. Improved distention was linked with a distension of the stomach before application of Erythromycin in 9/16 cases.
Conclusion: Erythromycin can improve image quality in MRE given that a fluid filled stomach exits at the beginning of the scan.

SP 79

Novel method for air delivery during fluoroscopic-guided intussusception reduction

C. Silva, G. Jindal, New Haven/US

Objective: To report a novel method of air delivery during fluoroscopic-guided intussusception reductions.

Materials: We have modified the intussusception reduction device described by Shiels et al. (Pediatric Radiology 1990; 20: 472–474). Such device has been used by more than 250 institutions. With our modification, the air used for intussusception reduction is delivered not by the device's insufflator bulb, but rather by the hospital medical air supply system. This eliminates the inconvenient need of continuous pumping of the bulb during the procedure, and ensures steady pressures to the air delivered to the patient. The intussusception reduction device is connected to the medical air supply outlet located in the fluoroscopy room through plastic tubing. At the device end, the tubing connects to a three-way stop valve, which, in turn, connects to both the aneroid gauge and the enema tip. The air-release valve of the device is used to increase or decrease the pressure that is delivered to the patient.

Results: To date eight consecutive ileocolic intussusception reductions have been performed with the described method, with a so far success rate of 100%. Procedure times have varied between 28 s and 380 s (median 42 s).

Conclusion: This device modification allows for constant air pressures, and increased operator comfort.

SP 80

Do nasojejunal tubes migrate distally following initial placement? (will also be presented oral)

J. Adu, B. Said, T. Watson, London/UK

Objective: To evaluate whether fluoroscopically guided nasojejunal tubes (NJT) migrate distally following initial placement in children, together with complications and radiation dose data.

Materials: All children who had undergone NJT insertion over a 1 year period were retrospectively reviewed. Patient demographics, dose area product (DAP), screening time, position of NJT tip and any complications were recorded.

Results: One hundred twenty-two children underwent NJT insertion (Sept 2013–2014). The tip of the NJT was placed at or beyond the fourth part of the duodenum in 104/122 cases (85%), and beyond the pylorus in 121/122 cases (99%). 9/18 (50%) cases where the NJT tip was initially placed in the proximal duodenum, subsequently migrated to beyond the DJ flexure on follow-up radiographs. Mean screening time was 180 s (range 2–879 s), and median DAPs ranged from 0.013 Gy cm^2 in patients <1 year to 0.041 Gy cm^2 in patients aged 8 years and older, well below published diagnostic reference levels (DRLs).

Conclusion: Fluoroscopic NJT insertion is a safe procedure with high success rates and low dose. Even in cases where the tube was not initially placed at the DJ flexure, the tube frequently migrates into an optimum position.

SP 81

Diffusion-weighted magnetic resonance imaging at 1.5 Tesla in paediatric patients with Crohn's Disease

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Objective: Magnetic resonance enterography (MRE) and Diffusion Weighted Imaging (DWI) provide information in paediatric Crohn's disease (PCD). Few studies investigated role of apparent diffusion coefficient (ADC) values in distal ileal loops (DL) in PCD selecting simultaneously three b values (ADC at multi-b). Aim of our study was to investigate role of ADC values at $b=0$, 500, 800, and at multi-b in the evaluation of PCD.

Materials: Thirteen PCD patients (12.9 ± 2.3 years) underwent MRE with DWI between from August 2013 to November 2014. ADC values were calculated in unharmed loop and DL selecting images at $b=0$ and =500, $b=0$ and =800, and simultaneously at $b=0$, =500 and =800.

Results: MRE images were evaluated and a significant reduction of diffusion in PCD in the active phase at $b=500$, at $b=800$ and at multi-b evaluation. A significant relation of values at $b=500$ and multi-b and at $b=800$ and at multi-b was observed. Difference of ADC was significant in female patients, but not in males.

Conclusion: PCD through DWI is a growing field. ADC values at $b=500$ and 800 allow to define involved segments. Calculating ADC values selecting simultaneously more than two b values may be useful to evaluate PCD.

SP 82

Relationship between specific ultrasound (US) parameters and Vesico-Ureteral Reflux (VUR)

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Objective: Aim of the study was to analyze usefulness of specific US parameters in detecting of VUR in children with urinary tract infection (UTI).

Materials: The study included 101 patients with diagnosed and treated UTI. The US examination was carried out according to standard protocol (convex 3.5 Mhz and linear probe 7.5 Mhz). Five US parameters were defined—ureteral dilatation, renal pelvis dilatation, renal parenchyma width reduction, caliceal dilatation, and urothelial reaction.

Results: The US parameter with the highest sensitivity, specificity and negative predictive value (77.4%, 79.2% and 76.0% respectively) in detection of VUR was ureteral dilatation, while the parameter with the highest positive predictive value (62,5%) in detection of VUR was urothelial reaction.

Conclusion: In the case of ureteral dilatation and urothelial reaction on US especially in the presence of UTI, it is necessary to exclude existence of VUR.

SP 83

Choledochal cysts in children - a single center experience

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Objective: To evaluate the clinical, radiological and pathological findings of choledochal cysts in children.

Materials: The radiological examinations of patients with various symptoms and operated for choledochal cysts between 2007 and 2014 were evaluated retrospectively in 27 patients (21 female, six male; age range: 1 month–12 years).