



Editorial Comment: Laparoscopy versus robotic-assisted pyeloplasty in children: preliminary results of a pilot prospective randomized controlled trial

Silay MS^{1,2}, Danacioglu O³, Ozel K⁴, Karaman MI³, Caskurlu T³

¹ Department of Pediatric Urology, Istanbul Gelisim University & Istanbul Memorial Hospital, Istanbul, Turkey; ² Istanbul Bahcelievler Memorial Hastanesi, Bahcelievler, Istanbul, Turkey; ³ Department of Urology, Istanbul Medeniyet University, Istanbul, Turkey; ⁴ Department of Pediatric Surgery, Istanbul Medeniyet University, Istanbul, Turkey

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Eliney F. Faria¹

¹ Serviço de Urologia, Hospital Felício Rocho, Belo Horizonte, MG, Brasil

COMMENT

This interesting paper reported a prospective randomized controlled trial (RCT) about laparoscopic and robotic pyeloplasty in the treatment of ureteropelvic junction obstruction (UPJO) in children. They addressed if the robotic-assisted laparoscopic pyeloplasty (RALP) has additional advantages over conventional laparoscopic pyeloplasty (LP) regarding suturing, comfort for the surgeon and visualization. The main disadvantage of RALP is its higher cost (1, 2). This is the first RCT comparing LP and RALP in pediatric population. In a period of 2 years, a total of 53 children (0–18 years old) with UPJO were enrolled into the RCT for either LP or RALP (Group 1, n: 27 - Group 2, n:26). The presence of crossing vessel was identified in 7 (25.9%) patients for LP group and in 6 (23.1%) patients for RALP group. Mean total operative time in LP group was 139.26 ± 43.21 min (80–250 min) compared to 105.19 ± 22.87 min (70–150 min) in RALP group ($p = 0.001$). The number of the trocar placement was significantly less in LP group (mean 3.00 ± 0) compared to RALP group (mean 3.81 ± 0.40) ($p = 0.001$). The mean cost of RALP was higher than LP ($p = 0.001$). They completed successfully all cases with none converted to open surgery. Postoperative complication rates were similar for both groups in the follow-up period. They reported overall success rate of 96.2%, similar to previously published series of minimally invasive pyeloplasty. Accordingly, robotic procedures had approximately four times higher cost than conventional laparoscopy (3). Despite small number of patients there was a as a pilot study, they reported a RCT and their findings are important to demonstrate the comparison of LP and RALP in children. The short-term results reveals that both LP and RALP are safe and effective in children with comparable success and complication rates.

CONFLICT OF INTEREST

None declared.

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Eliney F. Faria, MD

Serviço de Urologia, Hospital Felício Rocho, Belo Horizonte, MG, Brasil

E-mail: elineyferreirafaria@yahoo.com.br

ARTICLE INFO

 ***Eliney Faria***

<https://orcid.org/0000-0002-8297-3417>

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