

COMMENTARY

Laparoscopic orchidopexy for bilateral intra-abdominal testes

Lane S. Palmer, MD

Division of Pediatric Urology, Cohen Children's Medical Center of New York, Hofstra North Shore LIJ School of Medicine, New Hyde Park, NY, USA
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Among cryptorchid testes, 20% are non-palpable of which approximately 75% are found intra-abdominally. Since Jordan reported successful laparoscopic orchidopexy (LO)^{1,2} series abound supporting the safety and efficacy of laparoscopy in diagnosing and managing intra-abdominal testes.³ The utility of the Fowler-Stephens (F-S) procedure is accepted for open orchidopexy and we have reported 100% success in laparoscopic 1 and 2 stage F-S.⁴

Bilateral intra-abdominal testes represent (7%-25%)^{5,6} a small but important subset of cryptorchid testes. One important question is whether LO should be performed in a single or staged procedure? There are limited reports since Cortesi⁷ reported diagnostic laparoscopy of bilateral intra-abdominal testes¹ and Ansari⁸ reported single-setting bilateral LO in an adult.

We reported⁹ bilateral LO in 21 boys. The postoperative testicular position was mid-lower scrotum in 38 testes. Two testes atrophied – one after single-stage F-S, and one after non-F-S orchidopexy. Of the 42 LO, four were performed with F-S ligation; two in a one-stage and two in two-stage procedures. The latter two cases account for two of three cases not completed in a single setting. A third boy required open surgery to relocate a testis from the inferior pubis to the scrotum.

The current study by Safwat et al¹⁰ and our study are the two largest series of bilateral LO. We had very similar outcomes as a scrotal position was achieved in 89.6% and 90.5%, respectively. The higher rate of inguinal failures may reflect the importance of sufficient mobilization to gain length and avoid tension. I find assessing the testis position and need for additional mobilization (if possible) more accurate with the abdomen temporarily desufflated. The two studies had similar atrophy rates based primarily on physical examination; this of course assumes that at least one testis did not atrophy. Doppler is useful to assess viability but not atrophy.

The major difference between our studies is the performance of a single setting bilateral LO - 86% of our cases versus 25% by Safwat et al. There are several possible explanations. The patients in the current study were much older (median 31 months) than ours (8 months); vessels have less laxity and mobility with age. They also had a large number of testes > 2.5 cm from the internal ring. While this distance may help determine the need for F-S ligation, we found that careful lateral dissection can be started and the ability to complete the procedure determined early. If more extensive dissection or dissection near the vas, where we will depend on subsequent vessel growth, is needed, the case becomes staged.

The lessons from these two studies is that bilateral LO has excellent results that are comparable to those of unilateral LO and that patient selection and surgeon comfort drives the decision to perform a single stage or two staged procedure. □

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Address correspondence to Dr. Lane S. Palmer, Division of Pediatric Urology, Cohen Children's Medical Center of New York, 269-01 76th Avenue, New Hyde Park, NY 11040 USA