

SVI6: TWO DECADES EXPERIENCE WITH LAPAROSCOPIC VARICOCELE REPAIR IN CHILDREN: STANDARDIZING THE TECHNIQUE

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Background The authors reported their 23-years experience in laparoscopic varicocele repair in pediatric population.

Materials and methods We retrospectively evaluated the data of 345 patients who underwent laparoscopic left varicocelectomy from January 1993 to December 2015. Average patients' age was 12.5 years (range 8–17). Seven out of 345 patients (2%) had a recurrent varicocele, and 5 out of 345 patients (1.4%) had a varicocele on a single testis. In 335 patients (97.1%) we performed a Palomo procedure, in 10 patients (2.9%) an Ivanissevich procedure. After 2010 in 105/345 patients (30.4%) we performed a lymphatic sparing procedure using isosulfan blue injection pre-operatively.

Results We had no conversion to open surgery. Average length of surgery was 17 minutes (range 4–45). The majority of procedures was performed in a day surgery setting. In 45/345 patients (13%) we performed additional procedures. We recorded 4/345 (1.3%) recurrences/persistences requiring re-intervention in patients underwent Palomo procedure while we recorded 1/10 (10%) recurrence/persistence requiring redo-surgery after Ivanissevich procedure. As for the hydrocele formation, in pre isosulfan blue era on 230 Palomo we had 25 cases of hydrocele (10.8%), 13 of them treated with scrotal puncture and 12 which needed a surgical operation. In the last 105 patients using isosulfan blue we had no post-operative hydrocele. We reported also 10 minor complications such as umbilical granuloma or instrumental problems.

Conclusions On the basis of our 23-years experience with varicocele repair, we clearly think that laparoscopic Palomo lymphatic sparing varicocelectomy using isosulfan blue can represent the standard of care for the treatment of pediatric patients with left varicocele. Laparoscopic varicocelectomy is technically easy and fast to perform, painless, scarless with a recurrence rate of about 1%. The use of a pre-operative injection of isosulfan blue permits to eliminate completely the hydrocele formation post-operatively.

Key words Palomo, laparoscopy, isosulfan blue, hydrocele, pediatric