

## Is Laparoscopy the Answer to the Contralateral Hernia in Children?

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In this issue of *IMAJ*, Lotan et al. [1] investigate an important and very common issue in the practice of pediatric surgery, namely the contralateral groin exploration in children with a unilateral inguinal hernia. The controversy of bilateral groin exploration and repair in children has been ongoing for many years and various imaging and surgical modalities were employed in an attempt to forgo the need for unnecessary groin explorations and its potential morbidity.

Lotan and co-workers present a small series of 124 children aged 1 month to 17 years with a clinical one-sided hernia into which a laparoscope was introduced through the opened sac to visualize the contralateral side in the search for a patent processus vaginalis. If a patent processus vaginalis was visualized a contralateral inguinal hernia repair was accomplished, whereas all others were spared the contralateral repair. Laparoscopy was technically impossible in 10 patients, so this series deals with only 114 children. In 26 patients (22.8%) of the total group a patent processus vaginalis was demonstrated on the asymptomatic side. Other series in the current literature reported overall patency rates of 33%, 50% and even 68% if under 1 year old, and 37% and 50% if under 5 years old.

The authors claim that this occurred with a peak incidence during the first year of life. However, they fail to share with the readers the actual numbers – which are of utmost importance because bilateral inguinal hernias are most common in children presenting during the first year of life and most or all pediatric surgeons who strongly advocate routine bilateral groin explorations will do so mainly for children under the age of one year. To balance the debate, other studies of children who underwent unilateral herniotomy and were followed for many years found that only 10–29% subsequently developed a contralateral hernia at sometime in their lives.

Another missing piece of important information is the side of the occult hernia discovered by laparoscopy. We know that the left processus vaginalis closes before the right one. That is why right inguinal hernias are more common in children than left ones (in the present study 67.7% right hernias and 32.2% left hernias). It would therefore be most interesting and important to know in how many of the right-sided hernias was an occult (asymptomatic) left one discovered. Another point not well elucidated is the follow-up. It is claimed that during 1–3 years follow-up no child with a negative laparoscopy developed an inguinal hernia. Alas, we are not offered any information how this follow-up was undertaken and accom-

plished, nor are we offered a median follow-up period to get a better perspective of these important observations.

All in all there is no doubt that diagnostic laparoscopy is finding its place in the diagnosis and management of contralateral inguinal hernias in children and in avoidance of unnecessary groin explorations. However, there are still some obvious indications for bilateral groin explorations, e.g., in premature babies, in a left-sided hernia, and in children with special consideration like those with a V-P shunt.

Beyond this, the laparoscopy requires the introduction of a 5 mm trocar through a tiny, often very narrow internal ring. Compounded with the required manipulation of the laparoscope it would often be prudent to add one or two sutures to re-tighten the internal ring and inguinal canal floor. Less traumatic might be the use of a flexible laparoscope as suggested in some recent publications.

Last but not least, the incidence of damage to structures of the funiculus spermaticus (vas deferens and testicular blood vessels) in the hands of experienced pediatric surgeons is extremely low. The 1–2% incidence cited by the authors reflects the cumulative experience of general hospitals and not necessarily the expertise we expect of well-trained and experienced pediatric surgeons operating on children younger than one year of age. The analogy can also be found in the adult hernia literature where the recurrence rate cited for general hospitals is over 10% but less than 1% in specialized hernia centers.

In conclusion, the authors present a viable and elegant technique that has an important role in the management of pediatric hernia surgery. However, it will not replace careful and meticulous surgery and as yet does not "end the controversy regarding repair of inguinal hernia in children" as claimed by this paper's title.

### References

1. Lotan G, Efrati Y, Stolero S, Klin B. Transinguinal laparoscopic examination: an end to the controversy regarding repair of inguinal hernia in children. *IMAJ* 2004;6:339–41.

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