



## Commentary

## Invited commentary: Contralateral processus closure to prevent metachronous inguinal hernia: A systematic review



In this issue, Muensterer and Gianicolo presented a systemic study exploring the utility of performing a contralateral processus closure in pediatric patients undergoing laparoscopic inguinal herniorrhaphy to prevent metachronous inguinal hernias. They identified 32 reports published since January 2012 involving patients age < 18 years, with a preoperative diagnosis of unilateral hernia that underwent laparoscopic evaluation. They report a total of 19,188 patients of which 38.5% had a contralateral open processus vaginalis, and the authors conclude that the prophylactic closure of the processus vaginalis results in an absolute risk reduction of 5.7%.

While the study intends to provide an update on a previous meta-analysis looking at the literature from 1940 to 2011, the authors encounter the same problem of high heterogeneity among low quality studies. This is not surprising given the large number of procedures that fall under the umbrella term of “laparoscopic inguinal hernia repair” in the pediatric population. The plethora of intracorporeal and extracorporeal laparoscopic techniques which pediatric surgeons can employ to treat inguinal hernias is perhaps a testament to the fact that systematic study has taken a backseat to innovation. Yet ironically, the authors note that majority (83%) of respondents from a recent survey favor the open technique with majority (79%) performing unilateral repair without contralateral exploration, which perhaps tells us that tradition trumps all.

Interestingly, the authors admit to holding the minority view, stating that they perform nearly all their pediatric inguinal hernias laparoscopically and perform a closure of a patent processus vaginalis if present. They conclude that one in 18 patients will need to be treated to prevent a metachronous inguinal hernia from forming, yet state that the decision of the family after informed consent is what should drive the decision[1]. A previous meta-analysis came to similar statistical

results yet concluded that closure of a patent processus vaginalis results in overtreatment. Who is right?[1] Who is wrong?[2]

While the authors are to be commended on their painstaking tour of the literature, perhaps their ultimate contribution is to demonstrate that there is more than sufficient equipoise to perform a randomized-controlled trial. As they conclude, this will likely require the involvement of multiple centers with long-term follow up to establish not only whether contralateral closure of a processus vaginalis will reduce the incidence of metachronous inguinal hernias, but whether patient outcomes are improved not only in childhood, but also in adulthood. Only until data from this study is available will practitioners be able to provide informed consent.

## Other considerations

- Inguinal hernia repair as children does not appear to change the risk of developing an inguinal hernia in adulthood ([https://www.journalacs.org/article/S1072-7515\(10\)01009-4/fulltext](https://www.journalacs.org/article/S1072-7515(10)01009-4/fulltext))

## References

- [1] P.J. Kokorowski, H.H. Wang, J.C. Routh, K.C. Hubert, C.P. Nelson, Evaluation of the contralateral inguinal ring in clinically unilateral inguinal hernia: a systematic review and meta-analysis, *Hernia* 18 (3) (2014) 311–324.
- [2] A.K. Smith, K.E. Speck, Pediatric Laparoscopic Inguinal Hernia Repair: A Review of Techniques, <https://www.sages.org/wiki/pediatric-laparoscopic-inguinal-hernia-repair-a-review-of-techniques/>, Accessed date: 15 July 2019.

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