Pediatric inguinal hernia: Shall we change practices?

Domingas Atouguia, Silviana Ribeiro, Tiago Tuna, Miguel Campos, Angélica Osório

Pediatric Surgery Department, Unidade Local de Saúde de São João, Porto - Portugal

Purpose

Whether to correct a pediatric inguinal hernia (IH) through open or laparoscopic repair is still controversial. [1,2] Laparoscopy has gained many followers in the last decade, being the strongest argument in favour the possibility of prevention of a metachronous contralateral inguinal hernia (MCHI).

We aimed to evaluate the incidence of a MCIH in a cohort of patients < 1 year old that had unilateral inguinal hernia open repair (OR), to characterize those in whom a MCIH was identified on follow-up and to review the most recent literature in laparoscopic pediatric IH repair, patent processus vaginalis (PPV) and MCIH.

Methods

Patients < 1 y.o. with unilateral IH OR

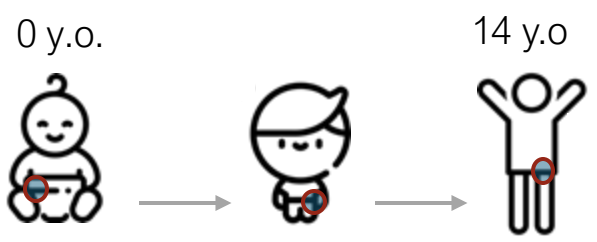
Retrospective review of clinical files

Data collected: sex, IH side, age at OR, prematurity and diagnosis of MCHI.

Exclusion criteria: >= 1 y.o., bilateral IH, criptorquidism, recurrent IH, laparoscopic repair and unavailable data.

Statistical analysis: SPSS®.

Results



MCIH incidence:
10.12 %
(95% CI: 5.65-14.59%)

Sex: 12 ♂ | 5 ♀	$p = 0.5$
Side: 10 R | 7 L	$p = 0.7$
Mean age at OR: 3.24 m	$p = 0.075$
Prematurity: 3 (n= 31)	$p = 1$

Table 1. MCIH population's characteristics and variable comparison between patients **with IH** with MCIH and IH **without MCIH.**

No significant association was found between these variables and the presence of a MCIH.

Conclusion

Although there are recommendations towards the laparoscopic repair in pediatric IH, formal and consensual guidelines are yet to come. The reported incidence of PPV ranges within 20-60%[3] and of MCIH between 5-31%[4], with most studies agreeing in values of 5-12%[5] meaning that probably not all PPV will become an IH.

In our study, and in agreement with the literature, a **MCIH was found in 10.12% and there was no significant association between sex, side, age at OR and prematurity (p> 0.5)**. According to this results, **to avoid one MCIH ten contralateral inguinal explorations would be necessary**. This reinforces the fact that the use of laparoscopy to detect and close a PPV, and consequently, to prevent MCIH is still a questionable argument.

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4. Dreuning, K. M. A., Van Nassau, F., Anema, J. R., Van Heurn, L. W. E., & Derikx, J. P. M. (2023). Implementing Contralateral Surgical Exploration during Hernia Repair in Children with Unilateral Inguinal Hernia: A Dutch Qualitative Study. Children, 10(10), 1631.