

A NEW CLASSIFICATION SYSTEM FOR THE INTERNAL INGUINAL RING IMPROVES PREDICTION OF METACHRONOUS CONTRALATERAL HERNIAE

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Aim: To determine whether any characteristic of the internal inguinal ring at laparoscopy, other than patency, is associated with the development of a hernia.

Methods: A prospective study of consecutive children with a unilateral inguinal hernia was performed. At the time of herniotomy, using an open approach, a 70° laparoscope was inserted through the hernial sac and a video recording of the contralateral ring was made. The contralateral groin was not explored irrespective of the findings. The children were followed up for hernia development.

Results: 204 children were recruited over a period of 5 years. Follow up was for a median of 3 (range 0.3-8) years. 21 children were excluded due to poor visualisation of the contralateral ring. 183 children (145 boys) with a median age of 8 months (range 3 weeks-16 years) were studied. There were 117 right and 66 left herniae. A contralateral hernia appeared in 13 (7%) children. Patency was noted in 61 rings and was associated with hernia development in 11 (18%) cases. A previously undescribed peritoneal veil appearing at the medial side of the ring was noted in 166 (91%) rings. A new classification system based upon patency and the presence of this veil was introduced: Type 1 ring (Patent without veil), Type II (Patent with veil) and Type III (Closed with veil). There were 17 (9%) Type I, 44 (24%) Type II and 122 (67%) Type III rings. The incidence of a metachronous hernia was 47% in a Type I, 7% in a Type II and 2% in a Type III ring.

Conclusions: Patency alone is a poor predictor of hernia development and leads to overtreatment. Our new classification provides the highest prediction of contralateral hernia development. A type I contralateral ring warrants herniotomy in an asymptomatic groin.