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ASSESSMENT OF THE LAPAROSCOPICALLY EXPLORED INTERNAL INGUINAL RING
- EVALUATE PATENT PROCESSUS VAGINALIS AS PERSISTED INGUINAL HERNIA-

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Purpose: An inguinal hernia is closely related with patent processus vaginalis (PPV), and function of transversalis fascial sling (TSF) or not. The morphology of the internal ring was assessed laparoscopically.

Methods: From June 1992 to December 2001, 316 children ranged from 28 days to 15 years of age underwent attempted laparoscopic examination of the internal ring (unilateral hernia 279, bilateral hernia 28, asynchronous hernia 2, and other disease 7). Trocar was inserted through the ipsilateral hernia sac or infraumbilical incision, and insufflated with CO2 to a pressure 8mmHg. The patient was placed in the Trendelenberg position. According to laparoscopic findings of the internal ring, we divided them to four types. Type I: Flat or shallow depression of internal ring and orifice of the PV is absent. Type II: Mild depression of internal ring, formed TSF with shatter mechanism and closely visible base of the PV. Type III: Wide opening of PV and deep base or absence of shatter mechanism of TSF. Type IV: unusual shape.

Result: In 279 cases of unilateral hernia, 149 cases (male:105, female:44) were right side and 130 cases (male:84, female:46) were left side. The view of the contralateral internal ring was type I 53.4%, type II 22.6%, type III 22.6%, and type IV 1.4% respectively. Type III rate was higher in female than in male((35.6% vs 16.4%). There were no difference between clinical right side and left side. The right Type III PV rate is decreased with development, however, there is no difference in left PV. Bilateral hernia was 28 cases (male:16, female:12), and their findings were type III. Laparoscopic exploration was also underwent in 7 patients during operative procedure for other disease, 3 patients had bilateral Type III PV and unilateral Type III PV was seen in 4 patient(right:2, left:2). In two cases of Type IV, initially recognized as Type II, returned with a contralateral hernia.

Conclusion: PPV, which indicates the potential of developing inguinal hernia, was 16.4% in male and 35.6% in female. This condition can explain that bilateral inguinal hernia is more common in girls.