

Synchronous contralateral asymptomatic inguinal hernia in children presented with unilateral inguinal hernia, a comparison between preoperative ultrasound and operative findings

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Abstract:

Background: Inguinal hernia repair is one of the most common procedures in pediatric surgical practice with an incidence of 1–4%. In 75–90%, the hernia is unilateral at the time of presentation, but after surgical repair some children develop a hernia on the opposite side, which is a metachronous contralateral inguinal hernia (MCIH). **Aim of the Work:** To evaluate the sensitivity and specificity of pre-operative inguinal ultrasonography in detection of contralateral patent processus vaginalis (CPPV). **Methods:** A prospective study of 137 children presented clinically with unilateral inguinal hernia, Pre-operative US was performed to all of them to assess the contralateral groin; if the contralateral groin proved to have patent processus vaginalis (PPV) by US, bilateral groin exploration was done. **Results:** Ultrasonography detected the presence of contralateral patent processus vaginalis (CPPV) in 52 patients (38%), while 85 patients have no CPPV (62%), After surgical exploration of the clinically negative 52 groin, hernia sac were found in 50 of them (96.2%) , false positive US finding was about 3.8%.The incidence of CPPV was much more common in patients diagnosed with left sided unilateral hernia (54.5%), No contralateral groin exploration was performed in 85 patients, those patients were strictly followed up for the development of metacronous inguinal hernia(MCIH) , only one of them developed MCIH 6 months post-operatively, the incidence of developing a MCIH after negative US finding was 1.17 %.The US sensitivity and specificity are 98% and 97.7% in diagnosing the CPPV. **Conclusion:** Preoperative inguinal US detect the presence of CPPV correctly in almost all cases, contralateral surgical exploration of those patient significantly decreased the incidence of MCIH in our follow up period.