

عنوان مقاله:

The Diagnostic Value of Mesenteric Vessel Abnormalities on Ultrasound for Malrotation

محل انتشار:

مجله بین المللی کودکان, دوره 10, شماره 12 (سال: 1401)

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خلاصه مقاله:

Background: Malrotation is an emergency, mainly in pediatric cases, and needs a timely and prompt diagnosis. Upper gastrointestinal (GI) contrast study used to be an acceptable modality in the diagnosis of malrotation; however, it has many disadvantages. In this regard, sonography has tried to take the place of upper GI studies. The aim of our study is to assess sonography and upper GI series as diagnostic methods for malrotation. Methods: In a cross-sectional study, ۱۵۴ pediatric cases suspected of malrotation were enrolled. The patients underwent upper GI series and sonography. In the case of sonography, two different findings, including inversion of the superior mesenteric vein (SMV) and superior mesenteric artery (SMA) and deviation (abnormal pathway) of the mesenteric artery were assessed. The sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV) of different sonography findings and upper GI study were calculated. Result: Different sonography findings showed various diagnostic values. Inversion of SMV/SMA had a sensitivity of ۵۸.۸۷%, specificity of ۳۶.۱۷%, PPV of ۶۷.۷۴%, and NPV of ۲۷.۸۶%. Furthermore, the sensitivity, specificity, PPV, and NPV of deviation (abnormal pathway) of mesenteric vessels were ۸۹.۸۷%, ۱۷.۰۲%, ۶۴.۵۴%, and ۵۰%, respectively. Taking into consideration the two findings together, sonography showed a sensitivity of ۷۳.۸۳% and PPV of ۶۷.۷۴%. Moreover, the sensitivity, specificity, PPV, and NPV of upper GI studies were ۸۲.۵%, ۱۰۰%, ۱۰۰%, and ۵۰%, respectively. Conclusion: Mesenteric vessel abnormalities may be valuable in detecting malrotation, but still upper GI contrast study is better. Development of other sonographic markers of malrotation, especially for different ages, is necessary.

کلمات کلیدی:

Malrotation,,,Ultrasound,,,Mesenteric vessels abnormalities

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