

SERUM IFABP A PREDICTOR OF BOWEL NECROSIS IN PEDIATRIC INTUSSUSCEPTION

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Background: The level of serum(IFABP) is regarded as a useful diagnostic marker of bowel necrosis in pediatric intussusception.

This prospective study aimed to determine if serum IFABP titer is a predictive marker of bowel necrosis in patients with pediatric intussusception and determine if the value correlates with the length of resected gangrenous bowel.

Methods: A total of 50 patients diagnosed with intussusception were enrolled in this study between May 2015 and April 2016. The serum IFABP levels were compared between the patients with confirmed bowel necrosis at surgery and those with no necrosis and compared together with age matched controls.

The cut-off values for the diagnosis of bowel necrosis were calculated using a receiver operating characteristic curve (ROC). In addition, the sensitivity, specificity, positive predictive value(PPV) and negative predictive value(NPV) were calculated.

Results: 25 patients were diagnosed with necrotic intussusception. The serum IFABP titers was measured with immunoassay and the median found to be significantly higher in this patients compared with titre of those without necrosis and controls (2.1ug/ml vs 0.9ug/ml and 0.47ug/ml p=0.002). Using a cut-off value of 1.53ug/ml, the sensitivity, specificity, PPV and NPV were 64%, 88%,84% and71% respectively.

I-FABP titre greater than 1.53ug/ml was found for a higher likelihood of necrotic bowel(p=0.002;odds ratio 13.04; 95% confidence interval;0.618 to 0.891)

Conclusion: I-FABP is a useful marker for discriminating between bowel necrosis in intussusception. It predicts increased likelihood of bowel resectability in intussusception.