Indications of paediatric endoscopies and correlation between results and clinical outcomes

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INTRODUCTION

Despite an increase in the number of endoscopies performed in children, there is no epidemiological evidence of a paralleled increase in the burden of paediatric gastrointestinal disease. Even in the absence of gross abnormalities, biopsies are routinely performed adding to the overall procedure cost.

OBJECTIVES

To evaluate the correlation between endoscopic and histologic mucosal appearance in children undergoing OGDs and colonoscopies and their association with clinical outcome.

METHODS

Retrospective review of clinical databases from June 2015 to July 2019. Only children undergoing their first diagnostic endoscopy were included.

RESULTS

• 196 children included; 47.6% female; mean age 10.9 (±3.8) years

- Indications for endoscopy (%)
  - abdominal pain: 34.3%
  - vomiting: 10.3%
  - diarrhea: 10.3%
  - constipation: 15.3%
  - rectal bleeding: 16.0%
  - reflux: 8.3%
  - suspected coeliac disease: 5.3%

- Endoscopy results
  - Upper endoscopy: 70.2% normal, 29.8% abnormal
  - Upper and lower endoscopy: 51.9% normal, 48.1% abnormal

- Biopsy results
  - Upper biopsy: 45.9% normal, 54.1% abnormal
  - Upper and lower biopsy: 38.2% normal, 61.8% abnormal

- Correlation between endoscopy and histology: phi = 0.46
- Correlation between endoscopy and discharge at 6 months: phi = 0.18
- Correlation between histology and discharge at 6 months: phi = 0.20

- Number of clinics prior to endoscopy: mean = 1.39 (±1.0)
- Number of clinics after endoscopy (within 6 months): mean = 2.3 (±1.6)

CONCLUSIONS

The majority of endoscopies performed were normal and almost half showed no histological abnormalities.

There was a strong positive correlation between endoscopic and histological results. Clinicians should consider the value of routine biopsies when macroscopy is normal.

Endoscopy did not appear to influence the discharge rate from hospital follow up and the majority of children were still under follow up 6 months after having an endoscopy.

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