Single centre experience of endoscopic balloon dilatation for luminal strictures in paediatric Crohn’s disease

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Background
- Intestinal strictures are a complication of Crohn’s disease despite optimal medical management.
- Endoscopic balloon dilatation (EBD) is frequently used for management of simple strictures in adults.
- Therapeutic endoscopy is rarely performed in paediatric gastroenterology centres in the UK.
- Strictures in the duodenum, jejunal, ileal and colonic area are accessible by endoscopy and enteroscopy.
- EBD is a less invasive treatment option for management of short strictures and can defer surgical intervention.

Aim
We aimed to evaluate the outcome of paediatric patients undergoing stricture dilatation over a 10-year period.

Subject and Methods
- Retrospectively reviewed all paediatric patients with Crohn’s disease who underwent EBD at a paediatric gastroenterology centre in the last 10 years (2010 to 2020).
- Strictures were identified using magnetic resonance enterography (MRE) and during endoscopy.
- Patients were booked for EBD if they were symptomatic, had pre-stenotic dilatation on MRE or inability to pass colonoscopy into stenosed lumen at previous endoscopy.
- Both paediatric colonoscopy and single balloon enteroscopy was used for EBD done under fluoroscopy guidance.
- Clinical and endoscopic data were collected from electronic patient records.

Results
- 10-year period 21 patients with Crohn’s disease underwent endoscopic balloon dilatation.
  - 14 patients were female (67%) and 7 were male (33%)
  - The mean age of diagnosis of Crohn’s disease was 12.3 years (5-16.4yrs) and the mean age at the time of the occurrence of first stricture was 14.3 years (10.9-17.9 yrs).
- Multiple strictures were noted in 24% of patients. Location of strictures included ileal, ileo-caecal, pyloric, sigmoid and caecal.

Conclusion
- Our experience has shown that EBD is a relatively safe procedure for the treatment of luminal strictures.
- EBD results in symptomatic relief and delays surgical intervention in Crohn’s patients with luminal strictures.