

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.

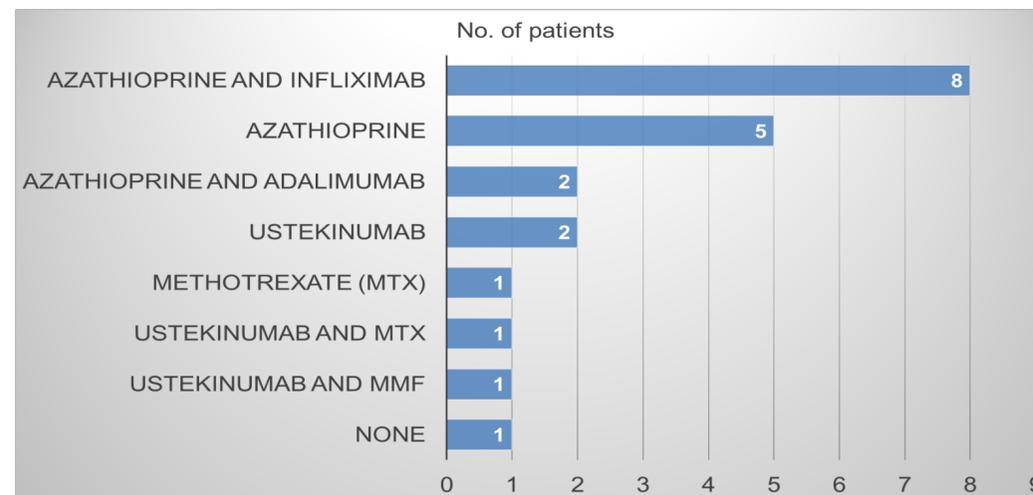
Subject and Methods

- 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

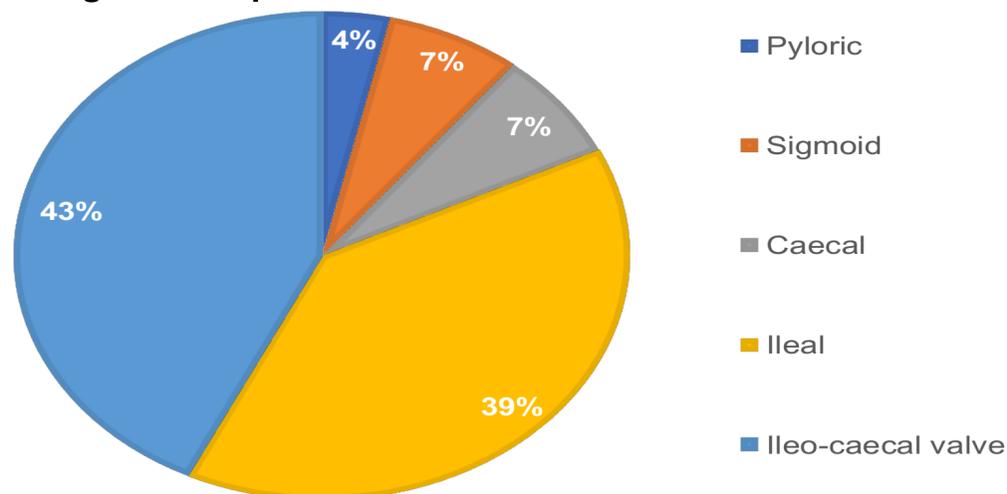
- 10-year period 21 patients with Crohn's disease underwent endoscopic balloon dilatation.
- 14 patients were female (67%) and 7 were male (33%)
- The mean age of diagnosis of Crohn's disease was 12.3 years (5- 16.4yrs) and the mean age at the time of the occurrence of first stricture was 14.3 years (10.9- 17.9 yrs).

Figure 1: Current treatment patients were receiving.



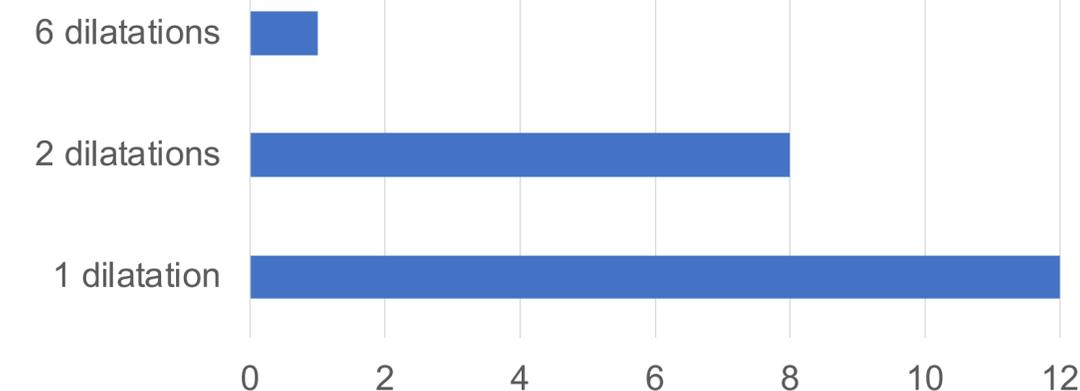
- Multiple strictures were noted in 24% of patients. Location of strictures included ileal, ileocaecal, pyloric, sigmoid and caecal.

Figure 2: Depicts the location of strictures.

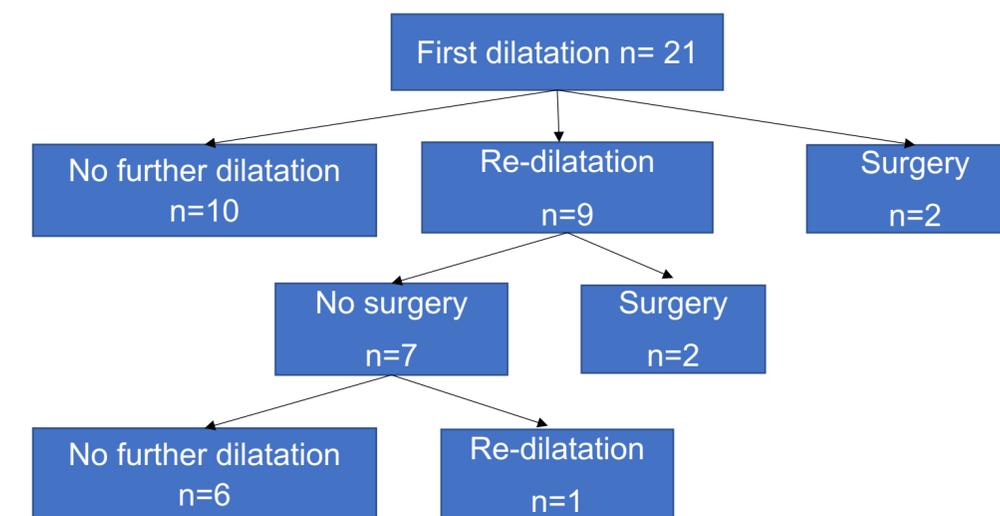


Results

Figure 3: Number of dilatations performed



- **85.7%** of patients were symptomatic (abdominal pain, vomiting, poor appetite) from the stricture and after EBD in **72%** the symptoms had improved.
- There were **2 procedure related complications** 0.06% (1 perforation requiring surgery and 1 perforation managed conservatively).
- **Figure 4: Long term follow-up**



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.