Endoscopic and drug
treatment may be
successful

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Incidence of duodenal CD

- Isolated and symptomatic Crohn’s
  - incidence rate 0.5-5%
  - duodenal bulb
  - second part of duodenum
  - children affected

- Minute (coincidental) upper GI lesions
  - quite frequent 40-70% of all CD patients
  - aftoid erosions
  - mucosal erythema

![Image of duodenal bulb](image1.jpg)

![Image of histological section](image2.jpg)
Duodenal CD - clinical manifestations

- Symptoms and signs of the duodenal obstruction
- Abdominal pain mimicking refractory duodenal peptic ulcer disease
- Duodenal fistulation (duodeno-colonic)
- Massive GI bleeding, acute pancreatitis
How to treat symptomatic Crohn’s duodenal strictures?

- Combine and intensive medical therapy
- Endoscopic balloon dilation
Medical therapy of symptomatic Crohn’s strictures

- Intensive inflammatory treatment
- Inhibition of gastric acid secretion
- Supportive and nutritional therapy
Antiinflammatory therapy

First line

- **Corticosteroid intravenously**\(^1\)
- **Biologicals (infliximab, adalimumab) = preferred**

Second line

- **Immunosuppressants (cyclosporine A, or tacrolimus)**\(^2\)
- **Maintenance therapy with biologicals, thiopurines (MTX) are recommended**\(^1\)

\(^1\) Travis S.P.L.: GUT 2006, Suppl 1, i16-35

Corticosteroids effect on mucosal healing

*Among patients with clinical remission, n=131

Endoscopic findings

Mucosal healing - effect of biologic therapy (top-down)

Number of patients

Combine immunosuppression: 73.1%
Standard therapy: 30.4%

P < 0.0018

Infliximab decreasing risk of major abdominal surgery in CD patients

Endoscopic balloon dilation Crohn’s strictures

- Through the scope balloons (TSS 18-20 mm); wire-guided\(^1\)\(^2\)
- TTS-CRE (controlled radial expansion balloon)\(^3\)
- Technical success rate 85-100%

\(^1\)Blomberg B.: Endoscopy 1991; 23:195-198
\(^3\)Goldstein J: Gastrointest Endosc 1997; 45:AB 29
### Endoscopic balloon dilation - systemic review

Table 1. Descriptive analysis of the main variables of the included studies

<table>
<thead>
<tr>
<th>Author (Ref.)</th>
<th>No. of patients</th>
<th>Postsurgical strictures (%)</th>
<th>Sedation (%)</th>
<th>Maximum calibre</th>
<th>Steroid injection</th>
<th>Scope passing (%)</th>
<th>Technical success (%)</th>
<th>Clinical efficacy (%)</th>
<th>Major complications (%)</th>
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Kaplan-Meier curve for periods free of symptoms and free of interventions after balloon dilation treatment.

Ferlitsch A et al. Endoscopy 2006; 38: 486 Figure 1
Kaplan-Meier curve for surgery-free interval after balloon dilation treatment

Followup time (months)

Surgeryfree survival (%)

\( n = 39 \)

75% of the patients avoided surgery

Feditsch A et al. Endoscopy 2006; 38: 486 Figure 2
Crohn’s strictures which may be a trap for the unwary endoscopist

1. Strictures length more than 50mm
2. Angulated stenosis
3. Multiple and deep ulcerations
4. Strictures with the fistulas
5. Mezenterial or retroperitoneal extension of inflammation

Yamamoto H.: IOIBD Meeting, Kyoto 2008
Case from the clinical practice

- 11-years old boy
- Crohn’s disease with isolated duodenal stricture
- Abdominal pain, vomiting, and malnutrition
- Scheduled infliximab therapy and after that repeat session of balloon dilations
Case from the clinical practice

Growth velocity  Body mass index

Infliximab and balloon dilation started
Thanks a lot for your attention!