Inflammatory Bowel Disease

Professor Devinder Kumar
PhD FRCS
St George’s Hospital
London
Inflammatory Bowel Disease

• Crohn’s Disease
• Ulcerative Colitis
• Tuberculosis
• Diverticular Disease
Inflammatory bowel Disease

Ulcerative Colitis
• Disorder of colonic mucosa
• Starts in the rectum and extends proximally
• Continuous inflammation
• Bloody Diarrhoea
• Marked by exacerbation/remission

Crohn’s Disease
• Transmural
• Panenteric
• Granulomatous
• Patchy (Skip lesions)
• Stricture/fistula/perianal
• Abdominal pain, fever, diarrhoea, signs of obstruction
• Relapsing
IBD classification

**Crohn’s Disease**
- L1 Terminal Ileum
- L2 Colon
- L3 Ileocolon
- L4 upper GI tract
- L4+ Upper GI and distal
- B1 Without stricture
- B2 With stricture
- B3 Internally penetrating
- B3p Perianally penetrating

**Ulcerative colitis**
- E1 proctitis
- E2 Left sided (splenic flexure)
- E3 Pancolitis
- S0 In remission
- S1 Mild (<4 stools/day)
- S2 Moderate (4 stools/day) + systemic Sx
- S3 >6 stools, pulse >90, temp 37.5, ESR >30, Hb 10.5
Pathophysiology of UC
Pathophysiology of Crohn’s
Figure 2: Treatment algorithm for a patient with acute anemia

A: Mild to moderate anemia in a non-bleeding patient. B: Severe or life-threatening anemia in a bleeding patient. 


Figure 6: Surveillance of dysplasia in patients with ulcerative colitis.\textsuperscript{148-152}

*Controversial.
Medical treatment Crohn’s

- Antibiotics (Metronidazole)
- Steroids (systemic, topical)
- 5 ASA compounds
- Azathioprine
- Biologics
Surgery for Crohn’s

• Strictures
• Fistulating disease
• Perianal disease
Surgery for Crohn’s disease

- Approx. 80% will require surgery
- 10-30% reoperation at 5 years
- 30-40% at 10 years
- 50% at 20 years
Strictureplasty
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Strictureplasty

- Fazio et al 2007 – Meta-analysis
  23 papers, 1112 patients, 3259 strictureplasties
- 59% previous surgery
- 61% concomitant resections
- Age – 16-55 years
- Fibrotic strictures
strictureplasty

- 13% developed complications (2-107 months)
- Symptomatic recurrence in 39%
- 30% required surgery for recurrence
- 3% site specific recurrence needing surgery
- Younger age, shorter duration of disease and short interval since surgery are risk factors for recurrence
Strictureplasty

- No significant difference in recurrence rates after strictureplasty and resection
- No difference between strictureplasty and plasty+resection
- No short bowel
Strictureplasty

- Roy and Kumar 2006
- 40 patients (26 fibrotic, 14 active disease)
- 169 strictureplasties (96 fibrotic, 73 active disease)
- 7 patients had resection as well
- >70% recurrence/intervention free at 41 months
- Recurrence 3/14
Proportion remaining intervention free after first strictureplasty without resection

Time after first operation for recurrence (months)
Proportion of patients intervention free after surgery for recurrence

Time after first operation for recurrence (months)
Proportion intervention free after strictureplasty and resection
Number of strictureplasties per patient

![Bar chart showing the number of strictureplasties per patient. The chart indicates that most patients had 1 strictureplasty, with fewer patients having 2, 3, 4, 6, or more than 7 strictureplasties.](image-url)
Surgery for Paediatric Crohn’s

47 strictureplasties
No leaks
Reoperation 2 for restructuring
Improved nutrition/growth
Strictureplasty

- Safe and effective
- Protects against short bowel
- Compares favourably with resectional surgery
Post op complications
Fistulating Crohn’s Disease

Incidence

- Life time risk of fistula formation: 20-40%
- Tertiary centres: 17-85%
- Cumulative risk at 10 years: 33%
  20 years: 50%
- Cumulative incidence of perianal fistulae: 20-23%
Fistulating Crohn’s Disease

Development of a fistula suggests that the inflammatory process has extended into the surrounding organs, skin and tissues.
Fistulating Crohn’s Disease

Assessment

- Clinical
- Contrast radiology
- US/CT/MRI abdomen and pelvis
- Endo-anal US/MRI for perianal fistulae
Fistulating Crohn’s Disease
Treatment

Primary Aims:
• Define the anatomy
• Drain associated infectious material
• Eradicate the tract with medical or surgical means
• Prevent recurrence
Fistulating Crohn’s Disease
Medical Therapy

• 5-ASA—No evidence of effective healing
• Steroids—No evidence

Use of steroids may be associated with a deleterious outcome.
Fistulating Crohn’s Disease
Non response to medical Therapy

- Fibrostenotic disease
- High CDAI
- Abscess formation
Fistulating Crohn’s Disease
Enterocutaneous fistula

• Common after previous surgery
• Rarely occur spontaneously
• Usually due to -- anastomotic leak
  - residual/recurrent disease
• Often require faecal diversion
Perianal Crohn’s-Lesions

- Skin tag 37%
- Fissure 19%
- Fistula 29%
- Abscess 26%
- Anal ulcer 12%
- Haemorrhoids 9%
- Total with perianal lesions 54%

Keighley and Allan 1986
Classification

• Primary
  - Fissures
  - Cavitating ulcers
  - Skin tags/haemorrhoids

• Secondary
  - Abscess/fistula
  - strictures
Fistulas in Crohn’s disease

- Anal ulcers – deep transmural fissures – Fistula
- 25-50% of patients with Crohn’s disease will develop a perianal fistula
- Incidence higher in patients with rectal disease
Perianal fistulas

- Perianal: 54%
- Entero-enteric: 24%
- Recto-vaginal: 9%
- Other: 13%
Fistulas in Crohn’s disease

Cumulative incidence of fistula (%) vs. Time from diagnosis (yr)

Any fistula
Perianal fistula

No. observed: 169

Time from diagnosis (yr)

0 5 10 15 20
Perianal Crohn’s disease
Perianal Crohn’s disease
Perianal Crohn’s-Assessment

- Clinical examination
- Endoanal Ultrasound
- MRI
- EUA

Often combined assessment with EAU+EUA or MRI+EUA is required to make an accurate diagnosis.
Perianal Crohn’s – Endoanal U/S
Perianal Crohn’s-MRI
Treatment options-Medical

- Antibiotics  
  Metronidazole  
  Ciprofloxacin  
  Approximately 50% will respond but recur soon after stopping antibiotics

- Antibiotics as a bridge to azathioprine therapy  
  (Dejaco et al 2003)  Better long term outcome
Treatment options-Medical

• Azathioprine (Pearson et al 1995 Meta-analysis)
  Fistula healing  54%v21%(controls)
• Cyclosporine
  83% initial response to IV therapy
  Relapse as soon as converted to oral therapy (Gurudu et al 1999)
• Infliximab – ACCENT II
  55% achieved fistula closure
Treatment options-Surgical

- Adequate drainage of sepsis+periop antibiotics
- Assessment
- Drainage Seton to prevent further abscess formation
- Stoma- 96% initial improvement
- Definitive surgery – only for fistulae
- Proctectomy-Poor wound healing and perineal sinus
Perianal Crohn’s
Fistulating Crohn’s Disease
Fistula – in - ano

No rectal inflam. Rectal inflam.

Excellent response
Low rate of recurrence

Delayed healing
High recurrence rate
Incontinence

FISTULOTOMY    CONSERVATIVE
Surgery for Ulcerative colitis

- Refractory disease
- Steroid dependence
- Growth retardation
- Complications
  - Haemorrhage
  - Toxic dilatation
  - cancer/high grade dysplasia
At Diagnosis

- 30-50% Distal colitis
- 20-30% left sided colitis
- 20% Pancolitis

- Disease extent important predictor for colectomy
Crohn’s Disease
Ileal Pouch Surgery

• 3707 Patients
• Outcomes, complications and QOL
• Early perioperative complications in 33.5%
• Late complications in 29.1%
• Pouch failure in 5.3%
• Functional outcome & QOL- Good/excellent

Ann Surg 2013
Surgery for Paediatric IBD

26 Patients
Mean age 14 years
Mean follow-up 4.5 years
Median stool frequency 2
Incontinence 0
All in full time education/work
Surgery for IBD

- Safe
- Should be considered as soon as there are indications
- Should be a treatment option rather than last resort
Surgery for IBD

• Aggressive Physician/low threshold for surgery
• Conservative surgeon/high threshold for surgery
• Referral by a gastroenterologist should NOT be viewed as an indication for surgery