ULCERATIVE COLITIS

Non-specific inflammatory bowel disease affecting/confined to large bowel

Epidemiology: middle-age/ESI/white, western, Ashkenazi/stable incidence; increases w/ industrialization/less in smokers

Aetiology: unknown (genetics HLAB27, infection, gut dysbiosis)

PATHOLOGY

Patterns:

Proctitis(always starts here), proctosigmoiditis, left-sided colitis, pancolitis +/- backwash ileitis

Confined to large bowel; rectum always involved

Confluent inflammation (no skip lesions)

Lamina-propria inflammation(not transmural cf CD)

Microscopic:

Lamina-propria-confined infiltration(PMNs) → mucosal atrophy and destruction

Crypt abscesses +distortion/branching

Ulcers: abscess breakdown

Goblet cell/mucin depletion

Macroscopic:

Drainpipe colon: oedematous, fibrotic wall → loss of haustrations, mucosal atrophy, muscle hypertrophy→narrows

Ulcers: abscess breakdown

Pseudopolyps: exposed muscularis propria w/ granulation covering (after abscess rupture and ulceration)

CLINICAL FEATURES

Symptoms correlate w/ severity; 50% present fulminantly ; 15% subacute severe colitis

Abdo pain

Diarrhoea(w/ frequency, urgency) +bleeding/pus/mucous

Constipation(w/ tenesmus due to incomplete evacuation)

Obstruction if strictures

Perforation

Constitutional symptoms (sepsis/chronic disease/nutritional deficit in PLE)

EXTRA-GI MANIFESTATIONS:

2%; most after flare; commonest= polyarthropathy (symmetric)

	Related to disease activity (colectomy beneficial to limit)	Unrelated to disease activity
MSS	(i)pauciarticular arthropathy (asymmetric)	(ii)polyarthorpathy (symmetric) (ii)AnkSpond
HPB		PSC(→cholangioCa; commoner in UC)
DERM	Erythema Nodosum	Pyoderma Gangrenosum
EYES	Episcleritis(commoner in CD)	Uveitis(commoner in UC)

INVESTIGATIONS

Bloods: **p-ANCA +ive**, ESR/CRP

Stools: (i)MC&S: infective colitides (ii)Calprotectin

Radiology (i)AXR (dilatation,obstruction) (ii)CTAP (thick-walled +extraluminal disease; poor for mucosa)

Colonoscopy: visualise/bx (normal→ oedema, erythema, loss of vasc pattern, granular mucosa → macro features)

MEDICAL MANAGEMENT

Inducing remission in mild-moderate colitis:

1. Proctitis/proctosigmoiditis: topical ASA/topical + oral ASA/oral ASA alone (not as effective as topical alone/topical+oral)
ASA= mesalamine 1.5g/day *if ASA not tolerated/contraindicated/declined → topical corticosteroid/oral pred*

2a Left-sided/extensive colitis: high dose oral ASA +/- topical ASA +/- beclomethasone *oral pred if ASA not tolerated/contra/declined
2b Step 2: add oral pred if no improvement after 4wks ASA

Inducing remission in severe colitis:

1. iv corticosteroids (300mg/day hydrocort; 60mg methylpred) *iv ciclosporin if steroids not tolerated/contraindicated/declined
2. Step 2: ciclosporin added if no improvement in 72 hrs/worsens
3. Crack out the infliximab, let's go champ

Maintaining remission:

Proctitis/proctosigmoiditis: topical ASA/topical+oral ASA/oral ASA alone
Left/extensive colitis: low dose oral ASA
*Consider AZA/6MP if 2+ steroid-requiring flares in 12mths/remission not maintained by ASA/consider in single episode

TOXIC COLITIS

1. Medical management= TPN/abx/reverse coagulopathy/optimise fluid+electrolytes + infliximab
2. Surgical management= STC-EI with mucuous fistula/rectal washout if (a)Toxicity FTP (b)Obstn (c)Perforation (d)bleeding

	MILD	MODERATE	SEVERE
Bowel motions	<4	4-6	>6
Blood	Minimal	In between	Visible
Temp	N	N	37.8+
HR	N	N	HR>90
ESR	<30	<30	>30

CANCER IN ULCERATIVE COLITIS

Risk increases 1%/year from diagnosis; colitis Ca's uniformly distributed; CD>UC w/ same endoscopy strategy for both
Risks: continuously active disease/duration/extent of disease/bypassed colon/FHx CRC/PSC
DALM(Dysplasia-associated lesion/mass): (i)adenoma-like (as for polyps) (ii)non-adenoma (colectomy if cannot excise)
FLAT LOW-GRADE DYSPLASIA (LGD): 9x CRC risk and candirectly transform to CRC →proctocolectomy advised
FLAT HIGH-GRADE DYSPLASIA: proctocolectomy mandatory

NICE surveillance

Indications: IBD of 10yrs duration (i)UC but not protitis alone (ii)CD of more than one colonic segment

1. Baseline colonoscopy + targeted bx at 10yrs → determine CRC risk:

LOW = (a)extensive but quiescent UC/CD (b)left-sided UC/CD(not proctitis alone)
INTERMEDIATE= (a)extensive UC/CD + mild active inflammation (b)inflammatory polyps (c)CRC in FDR>50
HIGH= (a)extensive UC/CD + moderate/severely active inflamm (b)PSC (c)stricture past 5 yrs (d)dysplasia past 5yrs (e)CRC in FDR<50

2. Colonoscopic surveillance decided:

LOW: 5yrs
INTERMEDIATE: 3yrs
HIGH: 1yr

SURGICAL MANAGEMENT

Indications: (i)Disease status: medical intolerability/unresponsiveness/intractability
(ii)Complications: perforation/bleeding/toxic megacolon
(iii)Cancer: dysplasia/CRC
(iv)Extra GI conditions: (EN/pauci-arthropathy/iritis)

*CONSIDER: compliance and disease activity of rectum/condition of sphincters/patient choice re continence or stoma

1(a) Proctocolectomy w/ end-ileostomy

Indications: Patient choice/rectal cancer/poor sphincter function/poor rectal compliance
Good: remove all disease ||Bad: incontinent stoma

1(b) Proctocolectomy w/ continent ileostomy

45-60cm TI → S-pouch reservoir →outflow intussuscepted to create valve brought out as stoma
Indications: cannot tolerate IPAA but wish for continence
Complications: fistula/volvulus/valve slippage/subluxation/herniation

2. Restorative proctocolectomy/IPAA

J (2-limb, best functional outcome); S(3-limb, outflow obst); W(4-limb, difficult); H(isoperistaltic, stasis, distension, pouchitis)
Double-staple: cuffitis/dysplasia in retained mucosa
Hand-sewn with anal canal mucosectomy: nocturnal seepage
*defunctioning ileostomy mandatory to reduce leak risk

Subtotal colectomy + Ileo-rectal anastomosis

Only if minimally inflamed rectum/distendible and compliant/intact sphincter
Rectal cancer 20% by 30 yrs → annual surveillance
Proctitis 45% non-responsive → Proctectomy

5. Emergency colectomy

Subtotal colectomy w/ end-ilestomy
(i)Rectal drain after washout (ii)mucous fistula (will staple line take suture?/will stump reach abdominal wall?)
Defer proctectomy for later IRA/completion proctectomy+IRAA (preserve tissue planes and nerves, exclude Crohn's)

COMPLICATIONS AFTER POUCH SURGERY

(i)SBO: 30% at 10yrs post-op, usually adhesions
(ii)Anastomotic stricture: incomplete evacuation (dilate/excise/advancement/proctectomy)
(iii)Pouch vaginal fistula
(iv)Pouchitis: 50% and 10% of pouch failure → Freq/urgency/blood/mucous/incontinence/cramp
→ endoscopy + biopsy (suspect CD if persistent)
→?bacterial overgrowth (metro/Cipro/VSL#03/5-ASA)
(v)Pelvic sepsis: 20%; can occur years later w/ incidence ^ w/ time (esp if sphicnters involved)
(vi)Fertility: 50% reduction in women (3x higher in operated vs non-operated in meta-analysis)
(vii)Pouch failure 10% at 10yrs

Functional outcomes:

6 movements/24hrs average
11% minor incontinence; 21% nocturnal incontinence (50% in first 6mths)
90% overall satisfied

OTHER COLITIDES

CMV Colitis

Micro: large intranuclear inclusion bodies and smaller cytoplasmic inclusions

Radiation enteritis

Disordered crypts/endarteritis obliterans/lamina propria/fibrosis/loss of crypts

Infective colitis

Lamina propria infiltrate (PMN)/loss of crypts

Lymphocytic colitis

Lymphocytic infiltrates *normal crypts*

Collagenous colitis

Lymphocytic infiltrates + collagen deposition in lamina propria *normal crypts*

Solitary Rectal Ulcer

Surface ulceration/fibromuscular obliteration/little inflammatory activity

Typhilitis (neutropaenic enterocolitis)

Mucositis → transmural colitis of caecum/ascending colon due to cytotoxic chenmotherapy
Kids>adults; can be any bowel segment
Investigations: CT (caecal inflammation) and bloods (neutron/pancyto-paenia)
Management: (i)Conservative= bowel rest with abx/TPN/replace PFE + G-CSF
(ii)Sugery= perforation → right hemi and exteriorize both ends