

Inflammatory Bowel Disease – The way forward

Thomas M Attard MD FAAP FACG

Consultant Paediatrician –
Gastroenterologist

Inflammatory Bowel Disease – goals of therapy

- Achieving disease remission
- Maintaining disease control
 - Improved drug compliance
 - Decreased long term - morbidity
- Limiting psycho-socioeconomic burden of the disease
 - Improved quality of life

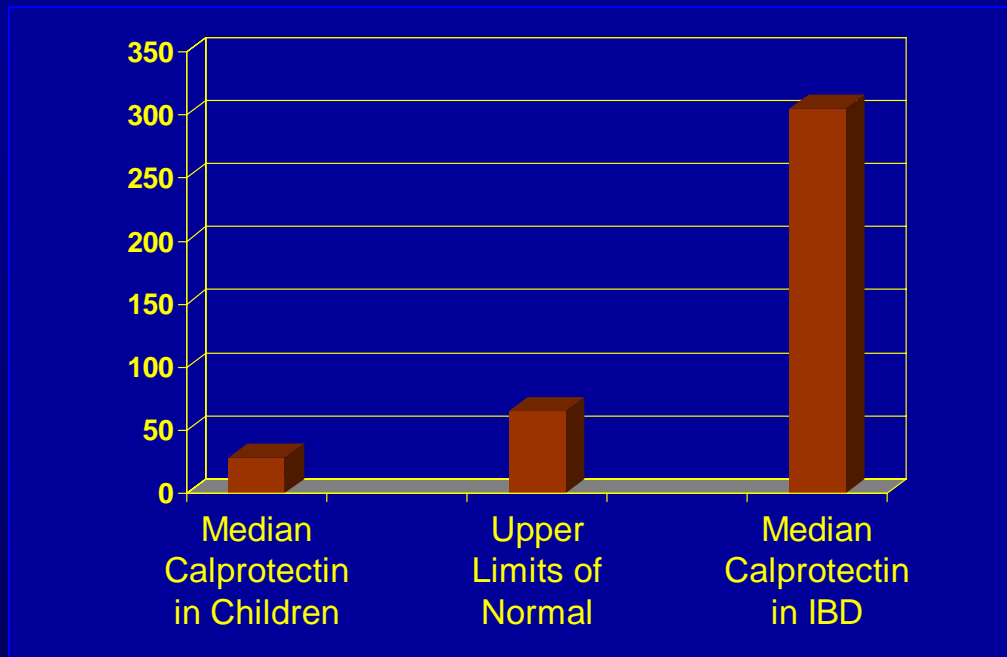
Inflammatory Bowel Disease – Diagnosis and therapy

- Establishing the diagnosis
 - Increased public / medical community awareness
 - More readily accessible screening tests
 - More comprehensive & non-invasive testing modalities
- Multidisciplinary approach to therapy
 - Rational drug selection (pharmacogenomics)
 - Evidence based (protocolized) therapy

Inflammatory Bowel Disease – screening & disease activity

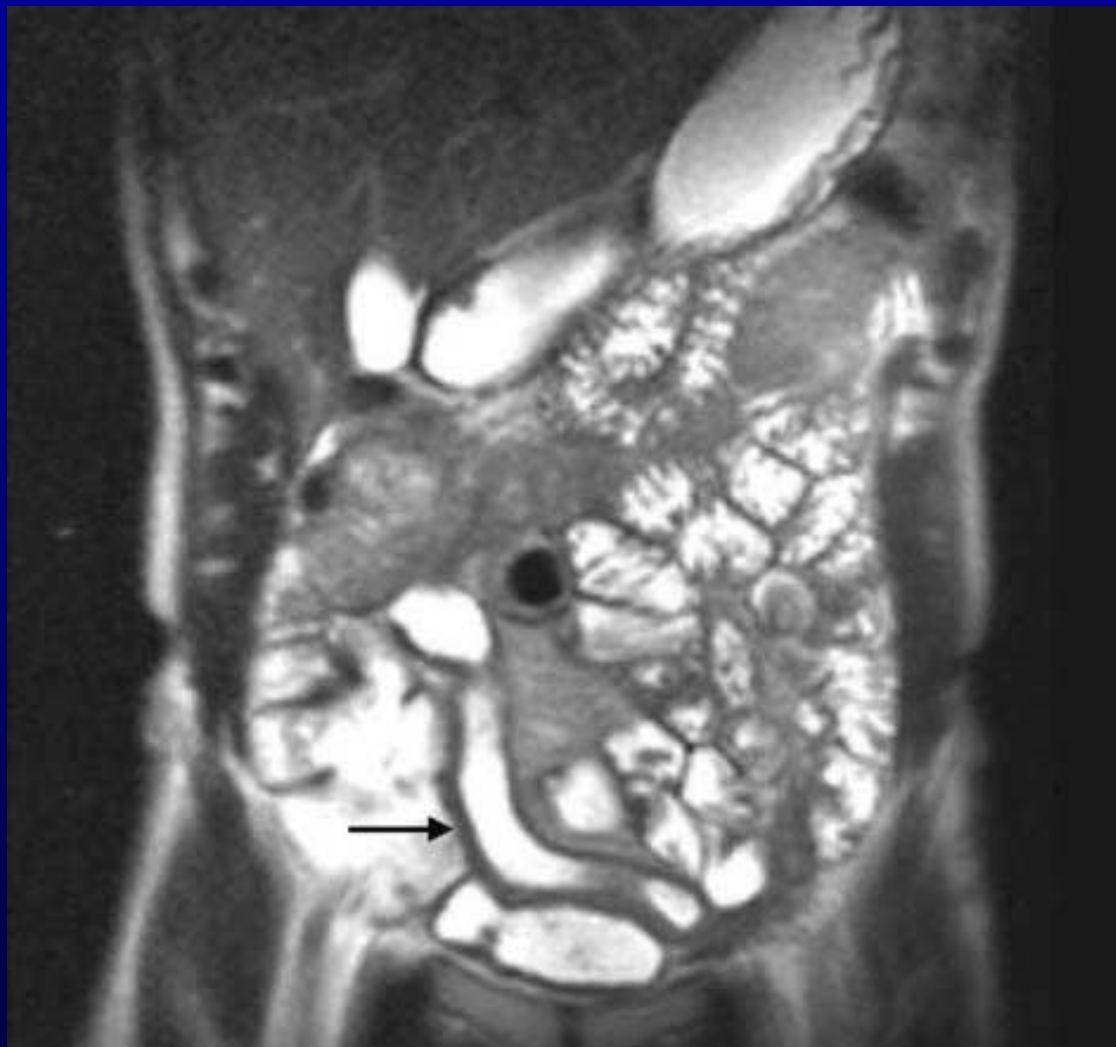
- Stool Calprotectin (CP)
 - Detects a WBC protein in stool (inflammatory marker)
 - Noninvasive stool test for enteritis (IBS v.s. IBD)
 - Clear difference between normal & disease state
 - Development of at-home testing kits

New Diagnostic Modalities: Calprotectin in Pediatric IBD



- Close correlation in children between calprotectin and both endoscopic and histological scores.
- Correlates well with radiolabelled white cell scans (a sensitive indicator of inflammation) in children with IBD.

New Diagnostic Modalities: Gadolinium-enhanced MRI



Gad-enhanced abdominal MRI (HASTE) sequence. Showing optimal distension of the distal ileum, with wall thickening and irregularities of the internal mucosal surface (arrow).

New diagnostic modalities: Capsule Enteroscopy



PillCam™ SB



Ambulatory
DataRecorder
on a belt



RAPID
Workstation
application for
image processing
and viewing



Given® Diagnostic System

Summary of Incremental Yield (IY) of CE Over Other Modalities

	Total yield CE (%)	Total yield other modality (%)	% IY for CE (95% CI)
vs. SB Radiography	66	24	42 (0.30-0.54)
vs. Ileoscopy	61	46	15 (0.02-0.27)
vs. CT Enterography	75	37	38 (0.23-0.54)
vs. Push Enteroscopy	51	7	44 (0.31-0.57)
vs. Small Bowel MRI	60	40	20 (0.41-0.81)

Therapy – drug level monitoring (serology & pharmacogenomics)

- There are inherent differences in the way normal and sick individuals absorb and metabolize medicines
- Some of these differences are genetically determined and affect the likelihood of the medicine working & the development of adverse effects

Therapy – drug level monitoring (serology & pharmacogenomics)

- Azathioprine / 6MP enzyme activity, drug – metabolite level determination
- Infliximab serum concentration and human anti-chimeric antibody levels (HACA)

IBD management – Traditional or ‘top down’



Variation in care in (Paediatric) IBD

246 CD patients of 93 paediatric gastroenterologists from 48 practice sites starting treatment with either thiopurine or infliximab were studied.

- 19 % without small bowel imaging
- 29 % without stool test for pathogens
- 30 % not tested for TB before starting infliximab
- 36 % of severely underweight patients not given nutritional support
- 40 % with under-dosing of thiopurine

Multidisciplinary approach in the management of (paediatric) IBD

- Family
- Primary care provider
- Paediatric gastroenterologist
- (paediatric) nutritionist
- Pharmacist / liaison
- Surgeon (paediatric / colorectal)
- Psychologist
- Teacher / school principal



Wagner's Chronic Care Model

