

# Capsule endoscopy in Crohn's Disease

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# Crohn's Disease

Wireless capsule endoscopy (WCE) offers endoscopic access to the small bowel and may therefore change diagnostic and therapeutic strategies in small bowel diseases.

# Indications

- Suspected Crohn's Disease
- Unclassified colitis
- Assessment of Crohn's Disease

# SM 17yr male

- Jan 2016
  - IDA, suspicious of IBD
  - Gastroscopy and colonoscopy NAD
- May 2018
  - Ongoing symptoms
  - Colonoscopy NAD
- July 2018 Wireless capsule endoscopy

00:33:58

10 Jul 18

SS



PillCam® SB3



00:01:28



00:08:48



00:08:51  
First Duodenal Image



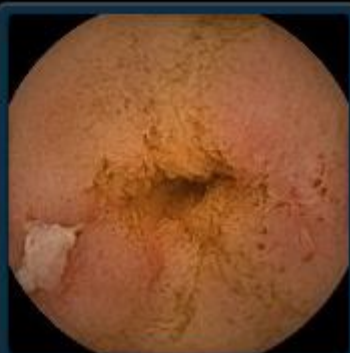
00:10:03  
EROSION



00:12:35  
definite erosion



00:34:53



00:34:54



00:37:33



00:37:58



00:38:01



00:42:20



00:43:46



00:44:02



00:46:08



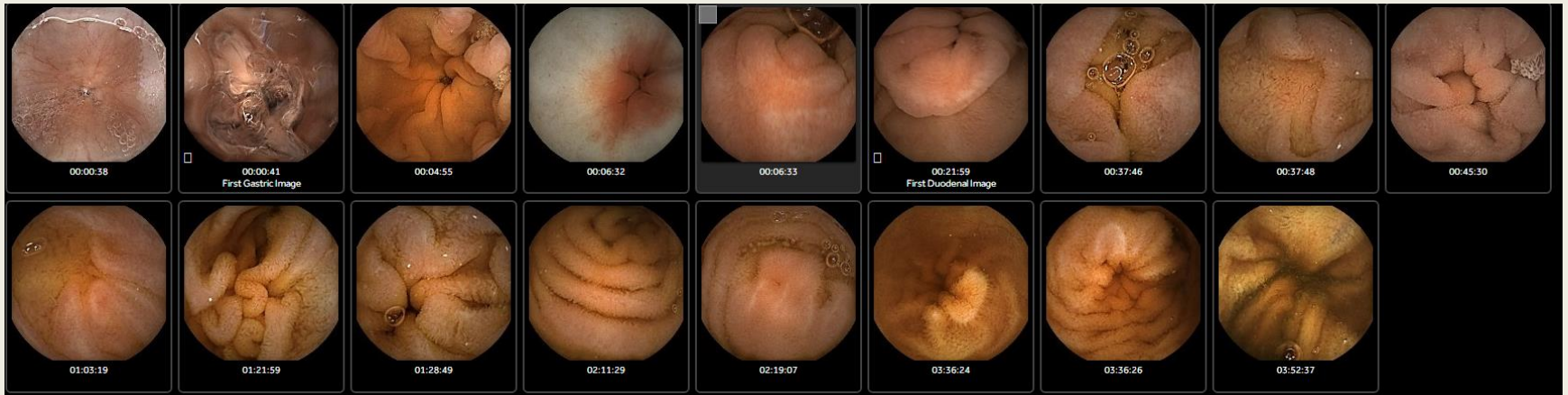
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JA 24 yr female

- 2015 Abdominal pain
- 2016 Admitted to surgery
  - IDA, calprotectin 250
- 2018 May
  - Admitted gynae NAD
  - Colonoscopy NAD
- 2018 September
  - Wireless capsule endoscopy

# WCE normal





CE for SCD who have had negative evaluations with radiology and IC.

Early diagnosis of SCD

CE is performed if the result implies a change in patient management

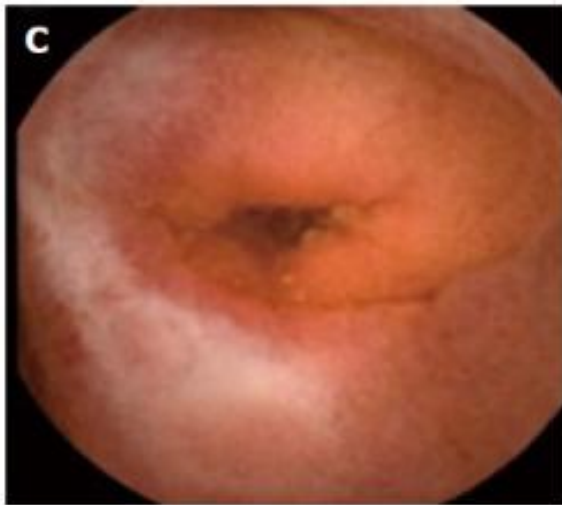
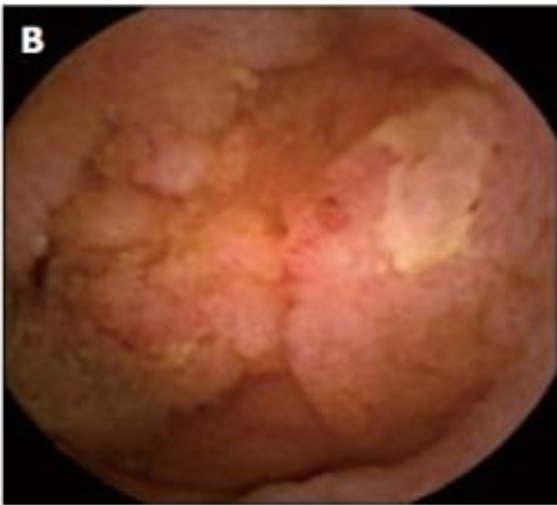
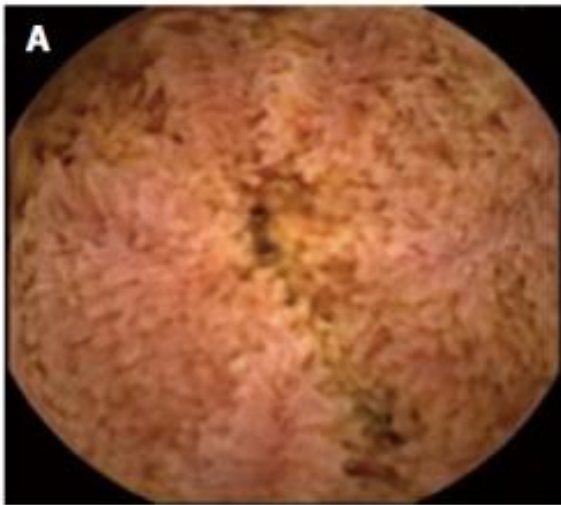
assessment of the extent of DCD

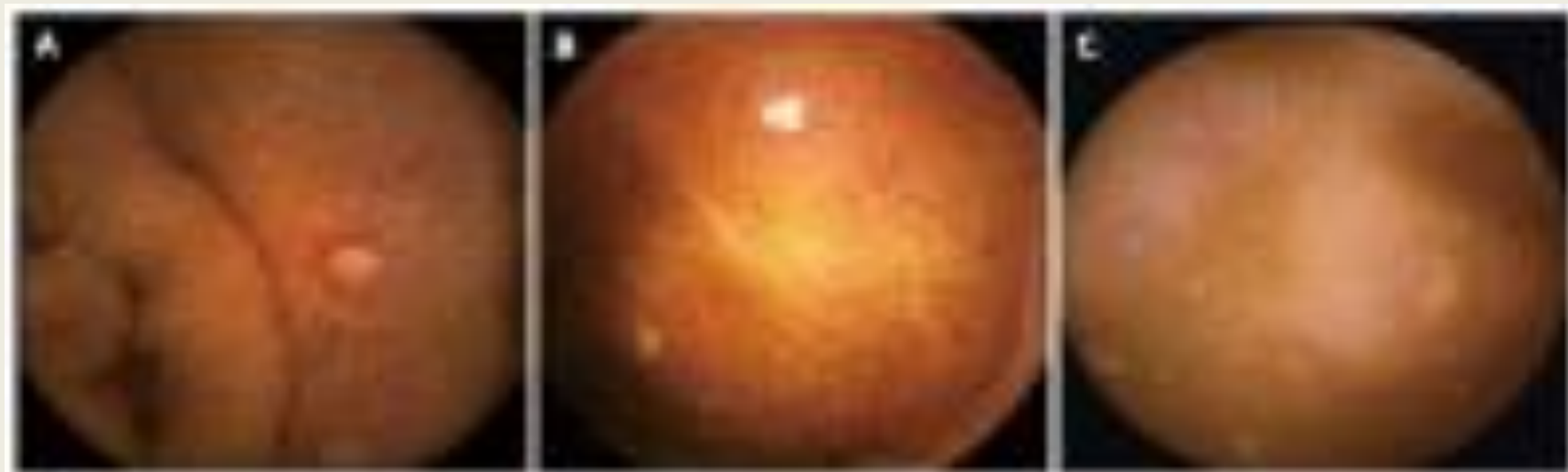
The systematic use of validated indices for scoring endoscopic activity

- Approximately 80 percent of patients have small bowel involvement, usually in the distal ileum
- One-third of patients having ileitis exclusively.
- Approximately 50 percent of patients have ileocolitis, which refers to involvement of both the ileum and colon.
- Approximately 20 percent have disease limited to the colon. In contrast to rectal involvement in patients with ulcerative colitis, one-half of CD patients with colitis have sparing of the rectum.
- Approximately one-third of patients have perianal disease.

# Lesions

- Stenosis
- Ulcers
- Erosions
- Cankers
- Pseudopolyps
- Fistulas





## Capsule endoscopy Crohn's disease activity index

### Inflammation score

0: None

1: Mild to moderate edema/hyperemia/denudation

2: Severe edema/hyperemia/denudation

3: Bleeding, exudate, aphtha, erosion, small ulcer (< 0.5 cm)

4: Moderate ulcer (0.5-2 cm), pseudopolyp

5: Large ulcer (> 2 cm)

### Disease extension score

0: No disease - normal exploration

1: Focal disease (single segment involvement)

2: Patchy disease (2-3 segments involved)

3: Diffuse disease (> 3 segments involved)

### Stricture score

0: None

1: Single - passed

2: Multiple - passed

3: Obstructing (not passed)

Segmentary score (proximal or distal):  $(A \times B) + C$

Total score: Proximal  $[(A \times B) + C]$  + distal  $[(A \times B) + C]$

## Lewis score for mucosal inflammatory changes

Lesions in the proximal, mid, and distal small bowel thirds

Villous appearance

0: Normal

1: Edema

8: Short segment

12: Long segment; 20: The whole third

1: Single; 14: Patchy

Ulcers

0: None; 3: One; 5: Few; 10: Multiple

5: Short segment; 10: Long segment; 15: The whole third

9:  $\frac{1}{4}$ ; 12:  $\frac{1}{4}$ - $\frac{1}{2}$ ; 18:  $> \frac{1}{2}$

Strictures

0: None; 14: One

2: Non ulcerated; 24: Ulcerated

7: No retention; 10: Capsule retention

Score calculation: Stricture score is added to the sum total for highest scoring villous edema and segment ulcers