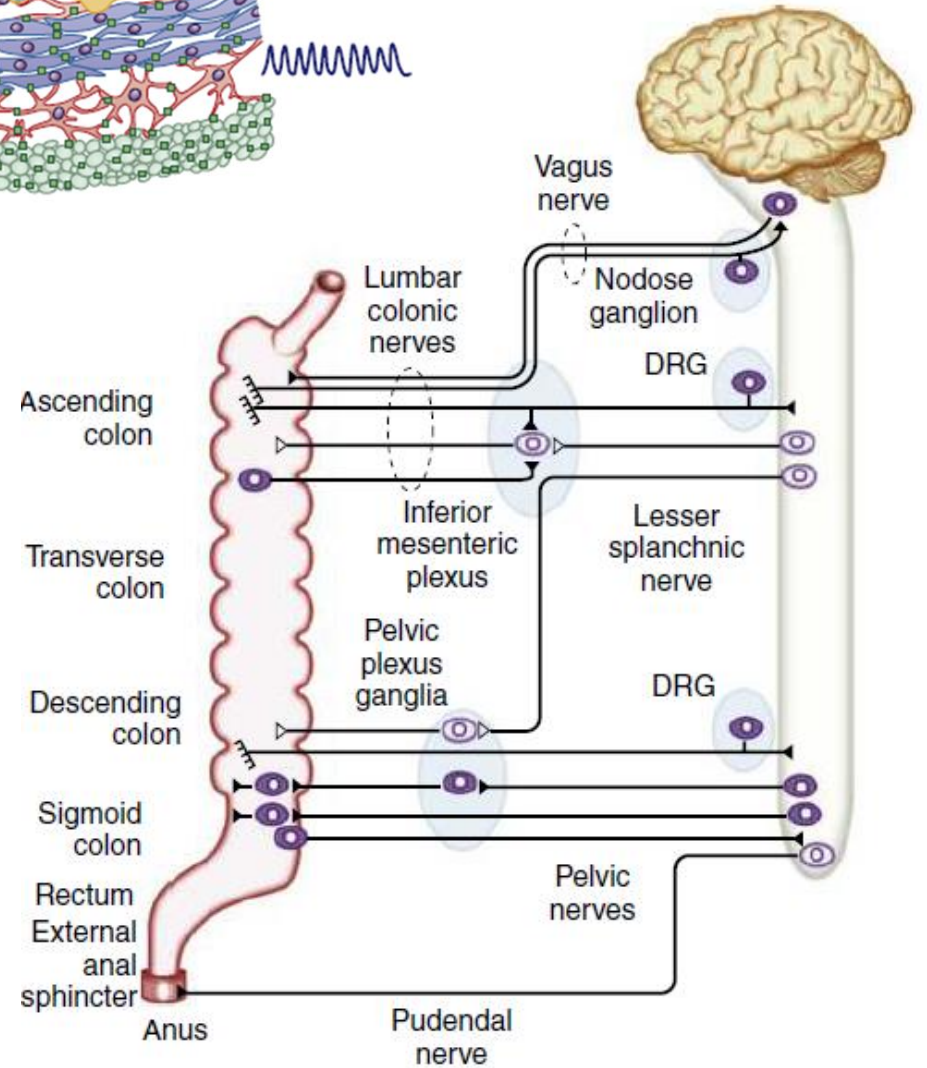
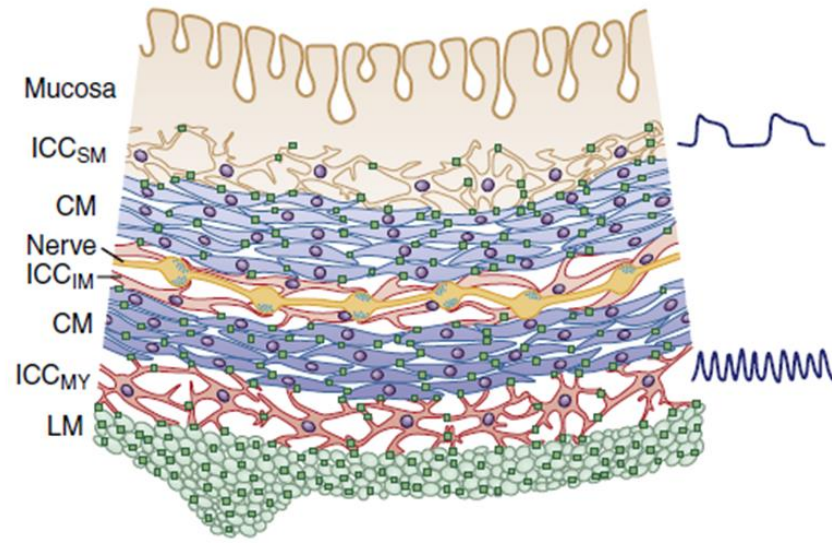
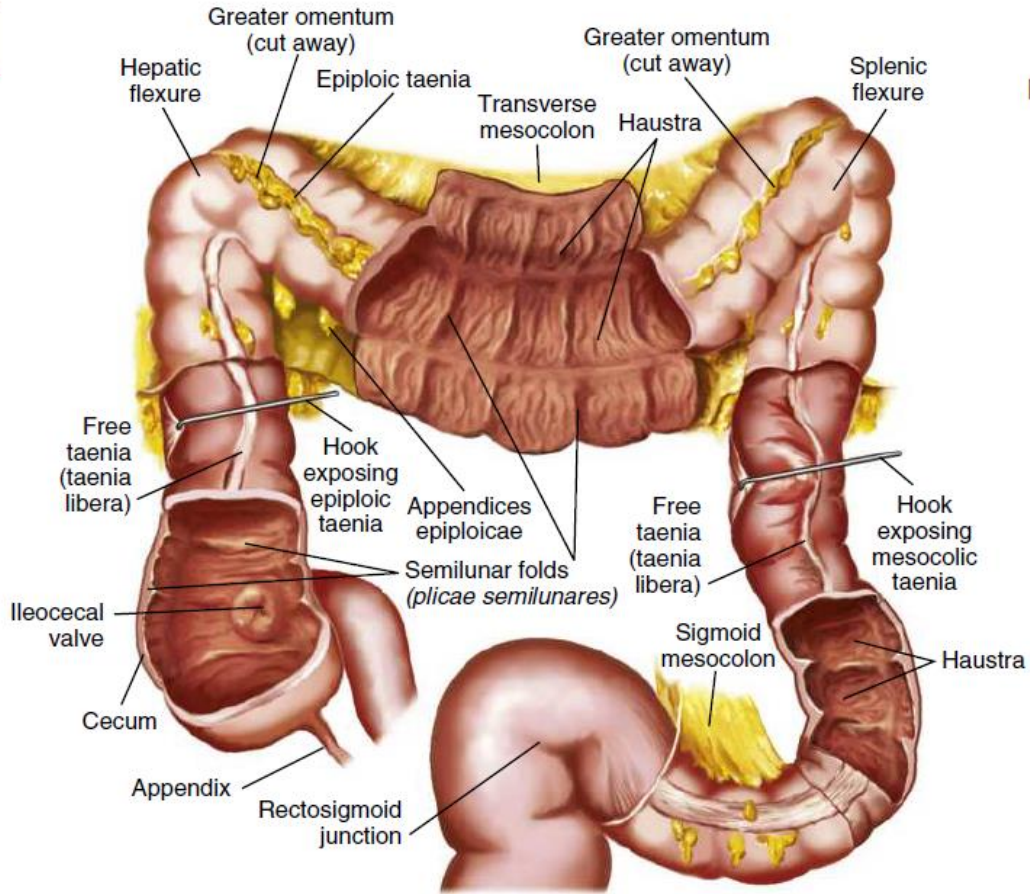


Constipation, faecal incontinence, dyssnergic disorders

Dr P Muchichwa

The colon



Adapted from Sleisenger

Constipation

Definition

Prevalence
16%, increases
with age

Risk factors for
constipation

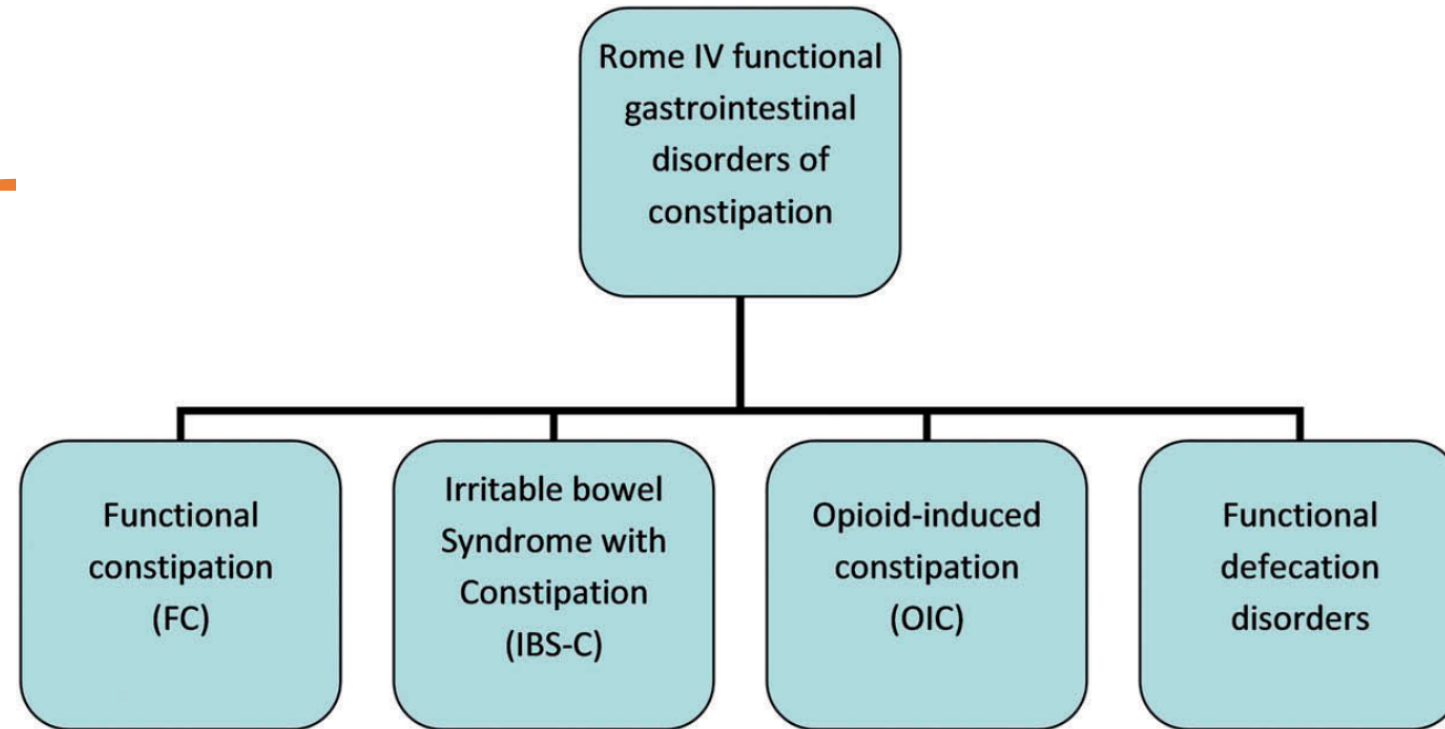
Protective
factors

Primary and Secondary Constipation

Primary constipation

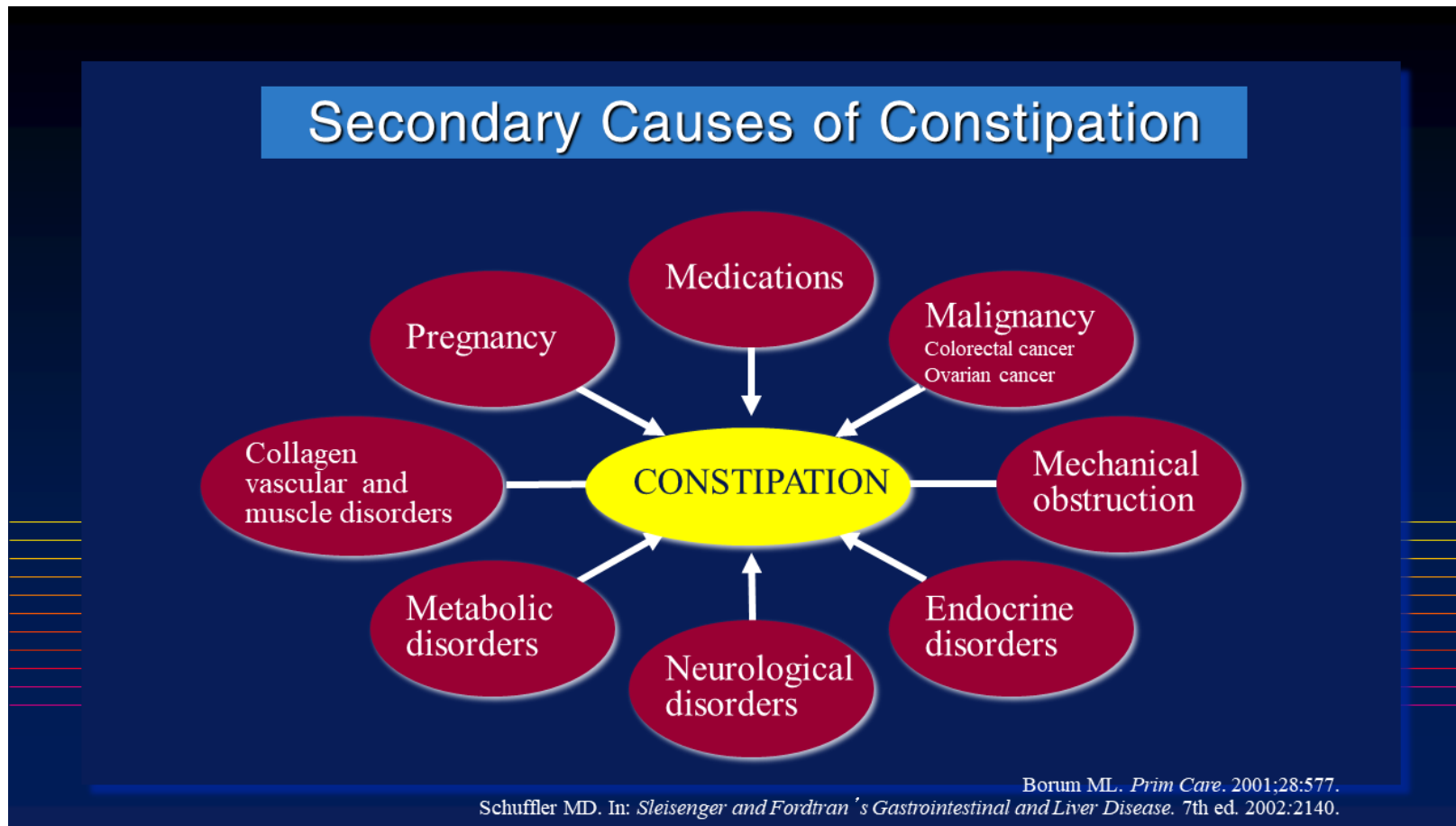
1. Constipation with normal transit time
 - often occurs as functional constipation
2. Constipation with delayed transit time
 - slow passage of contents through the intestines
 - disorders of the myenteric plexus and neurotransmission
3. Anorectal dysfunction
 - dysfunction of the pelvic floor and sphincter muscles

Rome IV



- FC vs IBS-C

Secondary constipation



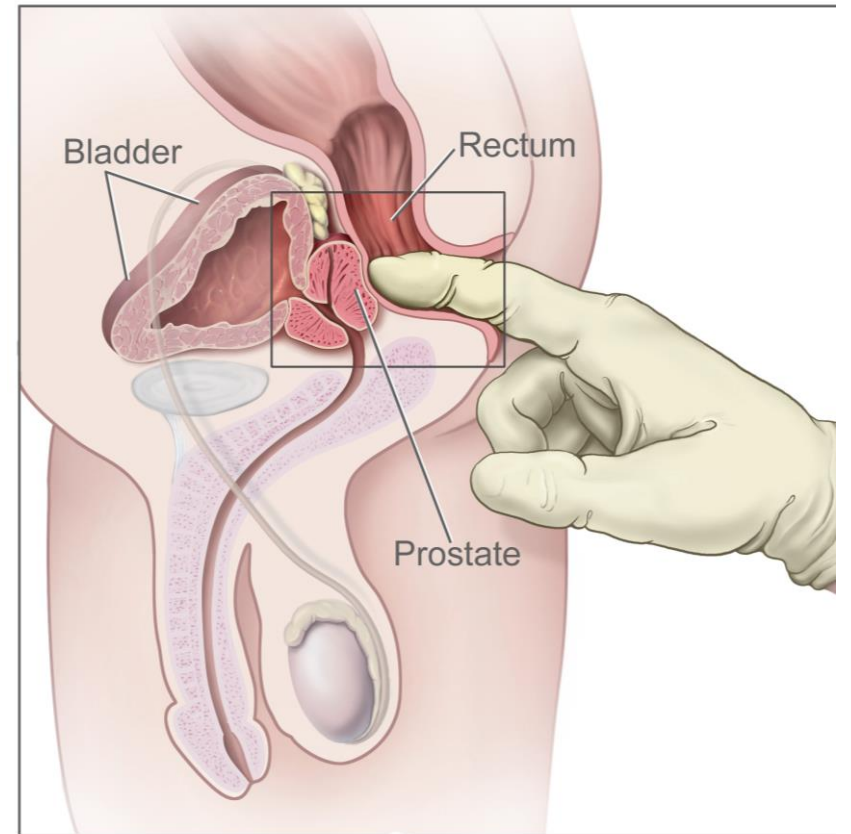
Diagnosis

History and Physical Examination

- Rule out the existence of alarm symptoms/signs and secondary constipation

Anorectal examination

1. Inspection
2. Palpation- Tone, mass, tenderness, stool
 - Squeeze x 2: normal, weak, increased
 - Bearing down x 2
 - Push effort, sphincter relaxation, perineal descent



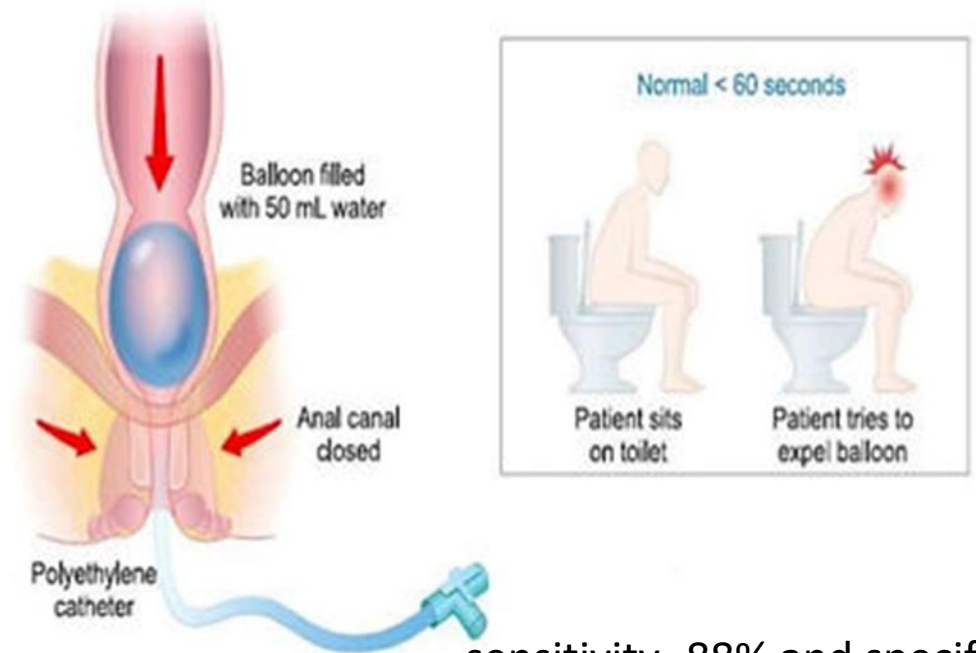
Advanced Physiological Tests

- Colonoscopy
- Anorectal manometry
- Balloon expulsion test
- Colonic transit studies
 1. radiopaque markers
 2. discontinue laxatives
 3. >20% of markers at day 4
- Defecography

Fluoroscopy vs MRI

Balloon expulsion test

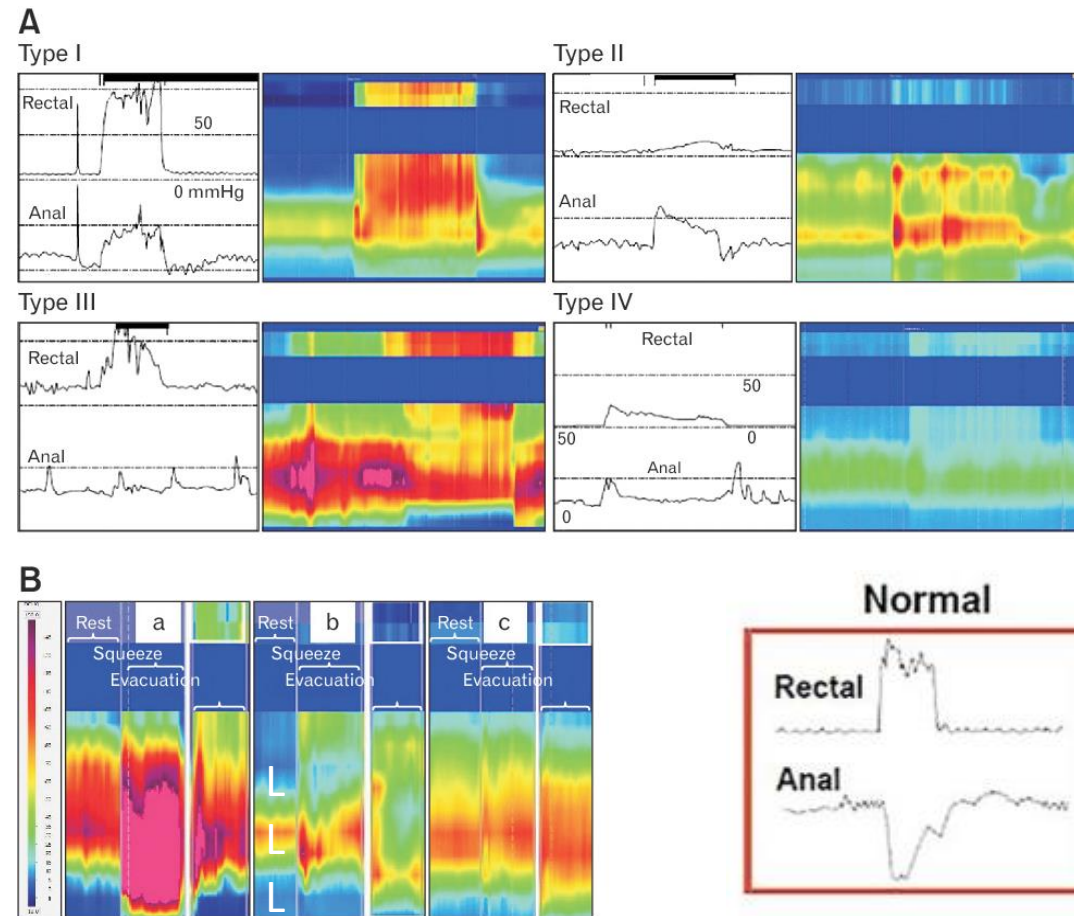
done at the same time as ARM



sensitivity -88% and specificity-89%

Anorectal manometry

- Assesses internal and external anal sphincter, rectal sensation, anorectal reflex, and rectal compliance



Therapy

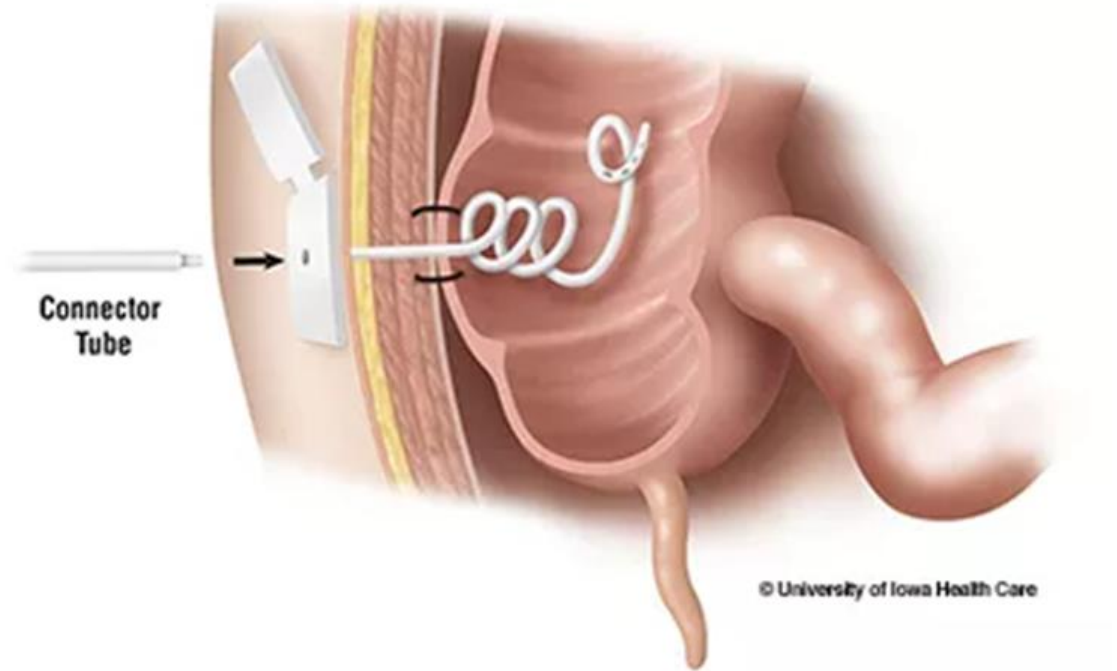
Nonoperative

1. Lifestyle measures
2. Pharmacotherapy
 - Osmotic Laxatives- Lactulose VS Polyethylene glycol
 - Bulk-Forming Agents-Plantago ovata
 - Stimulating Laxatives-bisacodyl, sodium picosulfate
 - Secretory Laxatives-lubiprostone, linaclotide, and plecanatide
 - Methylnaltrexone-opioids induced constipation

Therapy

Surgical Treatment

- Reserved for refractory constipation with delayed transit time.
- Cecostomy and colectomy
 1. Segmental colectomy with ileorectal
 2. Ileosigmoid or cecorectal anastomosis
 3. proctocolectomy with ileoanal anastomosis



Dyssynergic Defecation

1. Diagnostic criteria for functional constipation-Rome IV
2. Demonstrate dyssnergic pattern of defecation
 - Manometry
 - EMG
3. One other abnormal test:
 - a. Abnormal balloon expulsion Test (> 1 minute)
 - b. Prolonged Colonic Transit Time
 - c. Abnormal Defecography ($>50\%$ barium retention)

Treatment of Dyssynergic Defecation

General Measures-Diet

- Exercise, fluids & habit training
- Laxatives/Prokinetics

Specific Treatment

- Biofeedback therapy
- Cognitive Behavioural Therapy
- Surgery

Myectomy-30% improvement

Colostomy

Faecal incontinence

- Involuntary loss of solid or liquid faeces.
- Anal incontinence –flatus added
- Urge incontinence-desire to defecate
- Passive incontinence -lack of awareness

Risk factors

Older age, Diarrhoea, Faecal urgency, Urinary incontinence

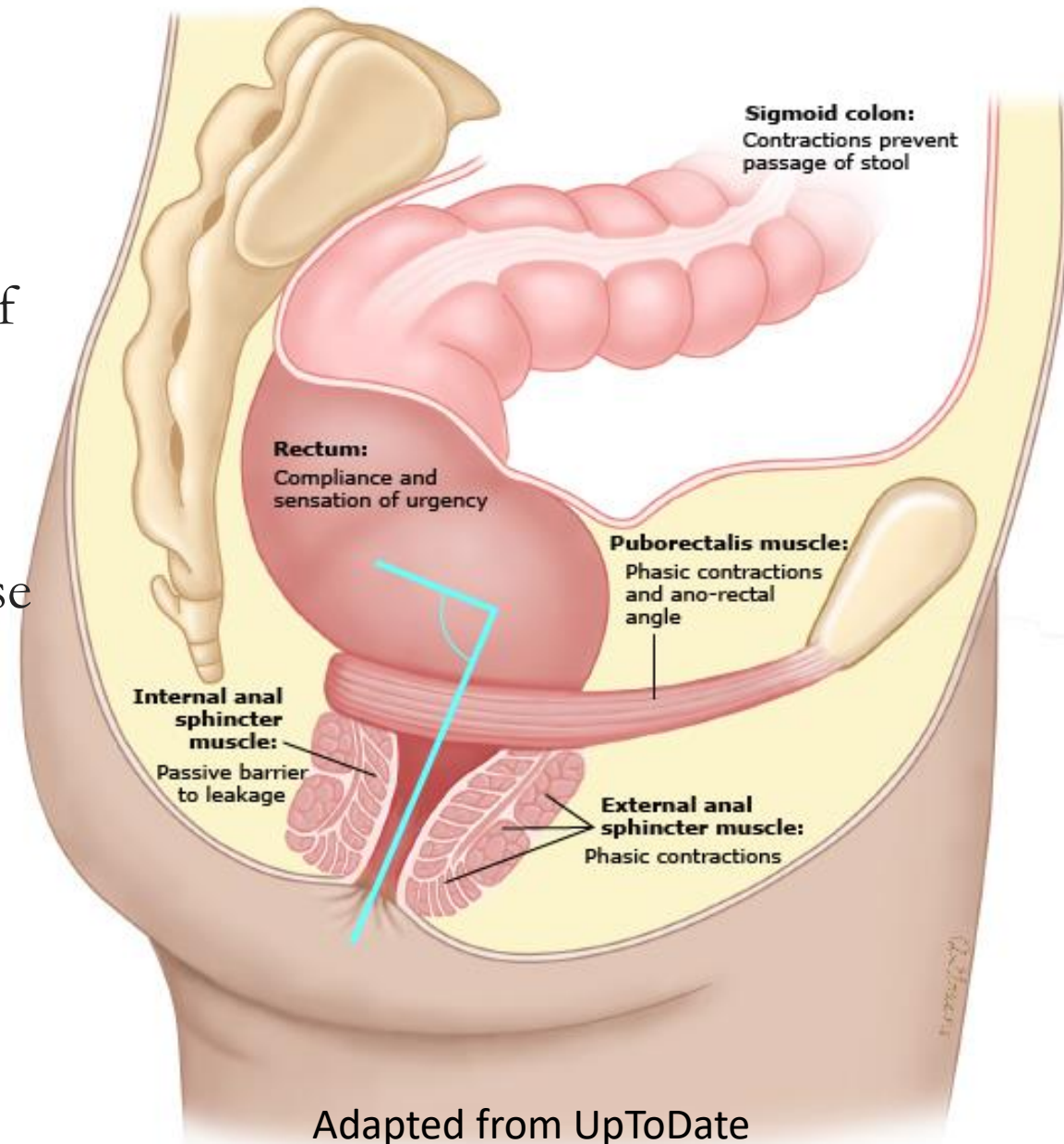
Diabetes mellitus, Hormone therapy

Physiology of defecation

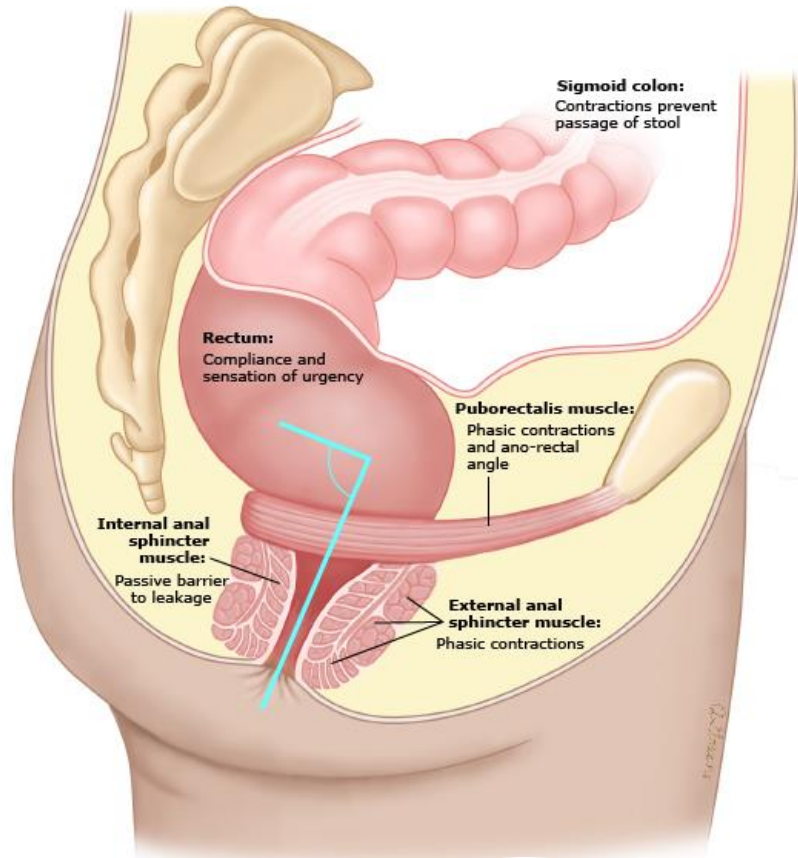
- Rectal distension leads to reflex relaxation of the internal anal sphincter
- Voluntarily straightening of anorectal angle- (Normal 80 and 110 degrees)
- Facilitated by squatting or sitting and increase abdominal pressure.

Continence depends

1. Cognitive function
2. Stool volume and consistency
3. Colonic transit, rectal distensibility
4. Anal sphincter function
5. Anorectal sensation and reflexes



Causes of faecal incontinence



- **Structural abnormalities**
 - Central nervous system, spinal cord
autonomic nervous system
- **Functional abnormalities**
 - Anorectal sensation
 - Fecal impaction
- **Stool characteristics**
- **Other**
 - Physical mobility and cognitive function

Approach to patients with faecal incontinence

- Obtain history
- Perform physical examination
- Obtain specific anorectal testing

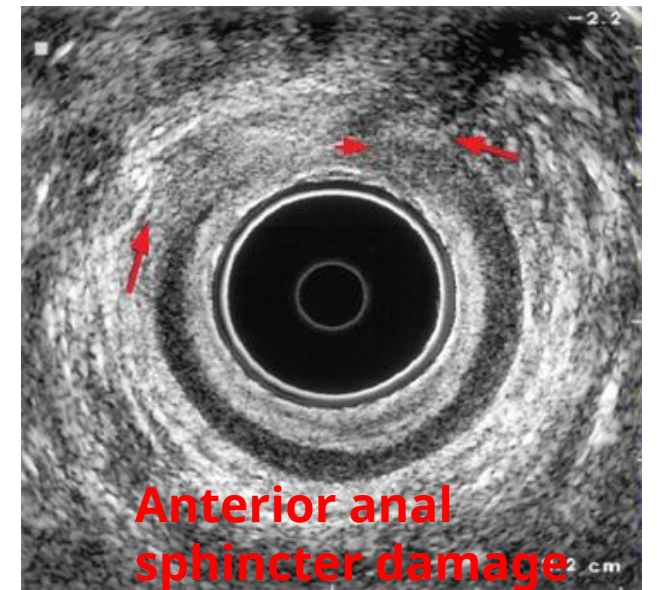
Lower endoscopy in most patients – Sigmoidoscopy <40yrs

Specific testing for patients with diarrhoea

Endorectal ultrasonography or magnetic resonance imaging (MRI) in patients with suspected sphincter disruption

Anorectal manometry in patients with structurally intact sphincters

Defecography for patients who have refractory symptoms, especially if surgery is being considered



Treatment

- **Supportive**
- **Medical therapy**

No specific medication

Antidiarrheal drugs in patients with liquid stools

Bulking agent

- **Biofeedback**
- **Surgical**
 - Repair for mechanical sphincter disruption
 - Anal sphincteroplasty
 - Colostomy or ileostomy

Biofeedback

- Cognitively retraining the pelvic floor and the abdominal wall musculature
- Intact anal sphincters and urge incontinence or decreased rectal sensation

Not indicated

1. Isolated internal anal sphincter weakness
2. Overflow incontinence associated with behavioural or psychiatric disorders
3. Neurological disorders
4. Decreased rectal storage
5. Major structural damage to continence mechanisms

Take home message- constipation

- Good clinical history and examination
- Exclude organic causes
- General measures
- Assess for dyssnergic defecation
- Stepwise uses of laxative
- Consider surgical options

References

- 1 Forootan M, Bagheri N, Darvishi M. Chronic constipation: a review of literature. *Medicine*. 2018 May; 97(20): e10631.
- 2 Mearin F, Ciriza C, Minguez M, Rey E, Mascort JJ, Pena E, et al. Clinical practice guideline irritable bowel syndrome with constipation and functional constipation in the adult. *Rev Esp Enferm Dig*. 2016 Jun; 108(6): 332–63.
- 3 Andresen V, Layer P. Medical therapy of constipation: current standards and beyond. *Visc Med*. 2018 Apr; 34(2): 123–7.
- 4 Serra J, Pohl D, Azpiroz F, Chiarioni G, Ducrotte P, Gourcerol G, et al. European society of neurogastroenterology and motility guidelines on functional constipation in adults. *Neurogastroenterol Motil*. 2020 Feb; 32(2): e13762.
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