

# FECAL INCONTINENCE

Satish S. C. Rao,<sup>1</sup> Adil E. Bharucha,<sup>2</sup> Giuseppe Chiarioni,<sup>3,4</sup> Richelle Felt-Bersma,<sup>5</sup> Charles Knowles,<sup>6</sup> Allison Malcolm,<sup>7</sup> and Arnold Wald<sup>8</sup>

Anorectal Disorders

Gastroenterology 2016;150:1430–1442

## **Table 1.** Functional Anorectal Disorders

---

### F. Functional anorectal disorders

F1. Fecal incontinence

F2. Functional anorectal pain

F2a. Levator ani syndrome

F2b. Unspecified functional anorectal pain

F2c. Proctalgia fugax

F3. Functional defecation disorders

F3a. Dyssynergic defecation

F3b. Inadequate defecatory propulsion

---

# FECAL INCONTINENCE

What is the definition of fecal incontinence?

# FECAL INCONTINENCE

Fecal incontinence (FI) is defined as

- recurrent uncontrolled passage of fecal material for at least 3 months after the age of 4 years.
- fecal staining of underwear may reflect poor hygiene, prolapsing hemorrhoids, or rectal prolapse rather than true FI, but for practical purposes it is included in the definition of FI.
- Clear mucus secretion must be excluded by careful questioning.

# FECAL INCONTINENCE

Epidemiology of fecal incontinence?

# FECAL INCONTINENCE

Prevalence of fecal incontinence:

- 7% to 15% in community-dwelling women
- 18% to 33% in hospitals
- 50% to 70% in nursing homes
- prevalence comparable or lower in men than women

# FECAL INCONTINENCE

Causes of fecal incontinence?

## **Table 2.** Common Causes of Fecal Incontinence

---

### Anal sphincter weakness

Traumatic: obstetric, surgical (eg, hemorrhoidectomy, internal sphincterotomy, fistulectomy)

Nontraumatic: scleroderma, idiopathic internal sphincter degeneration

### Neuropathy

Peripheral (eg, pudendal) or generalized (eg, diabetes mellitus)

### Pelvic floor disorders

Rectal prolapse, descending perineum syndrome

### Disorders affecting rectal capacity and/or sensation<sup>a</sup>

Inflammatory conditions: radiation proctitis, Crohn's disease, ulcerative colitis

Anorectal surgery (pouch, anterior resection)

Rectal hyposensitivity

Rectal hypersensitivity

### Central nervous system disorders

Dementia, stroke, brain tumors, multiple sclerosis, spinal cord lesions

### Psychiatric diseases, behavioral disorders

### Bowel disturbances

Irritable bowel syndrome, post-cholecystectomy diarrhea

Constipation and fecal retention with overflow

---

<sup>a</sup>These conditions may also be associated with diarrhea.

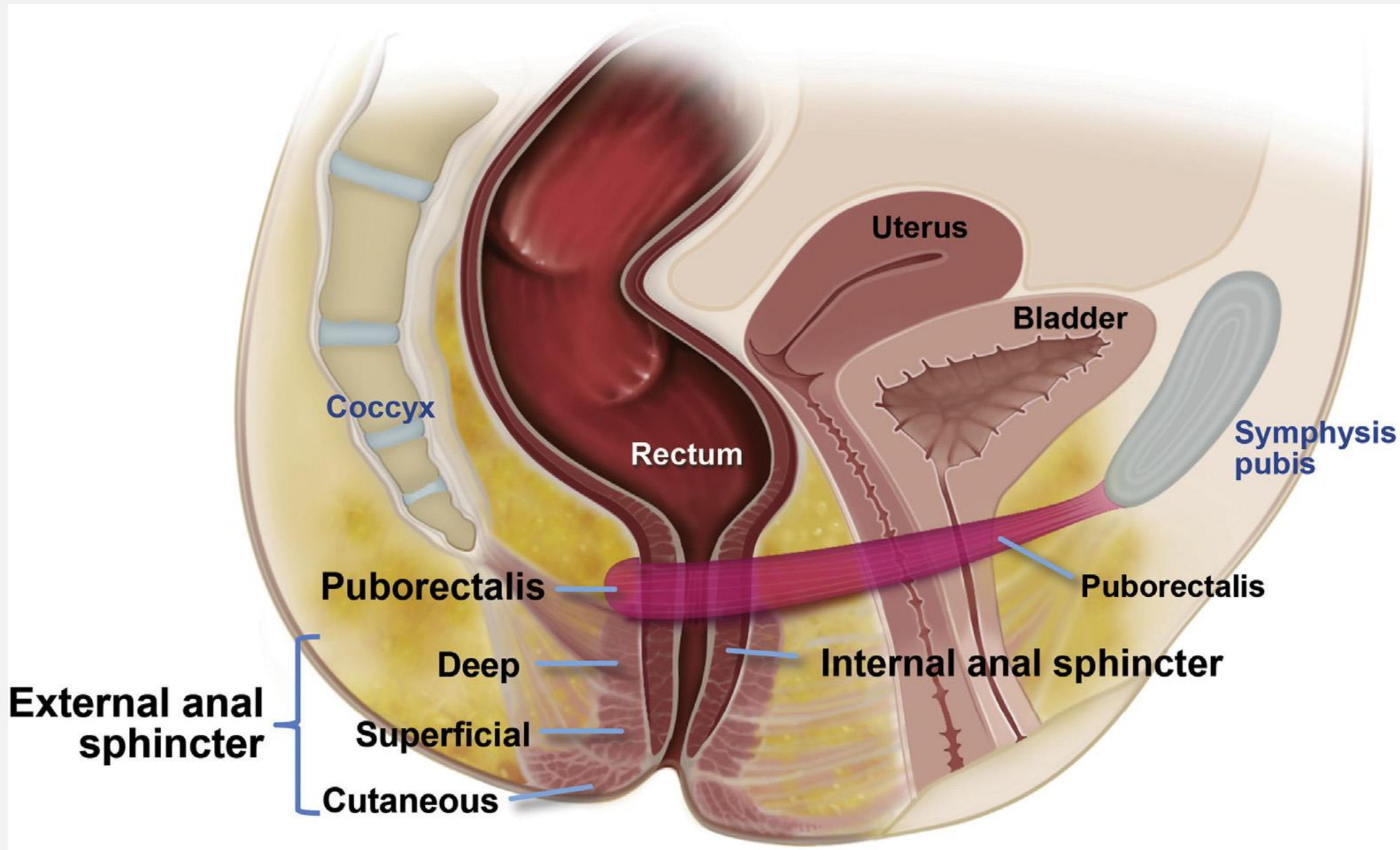


# FECAL INCONTINENCE

Which diagnostic procedures should be used?

# FECAL INCONTINENCE

- History:
- Digital rectal examination
- Endoscopy
- Imaging: Endosonography, (MR-)defecography, MRI
- Anorectal manometry



# ANORECTAL MANOMETRY

1. **Resting anal pressure:** 70% attributable to internal anal sphincter function
2. **Squeeze pressure:** the strength and duration of voluntary external anal sphincter and puborectalis contraction
3. **Internal anal sphincter inhibitory reflex**
4. **Threshold volume of rectal distention**
  - first sensation of distention,
  - a sustained feeling of urgency to defecate,
  - Maximum tolerable volume
5. **Attempted defecation**
  - increased intra-abdominal pressure and relaxation of the pelvic floor muscles (normal),
  - or by paradoxical contraction of the pelvic floor muscles, which may be relevant to symptoms
6. **Rectal compliance** can be evaluated by assessing the pressure volume relationship during stepwise distention of a latex balloon. Barostat preferable. )

# FECAL INCONTINENCE

Treatment?

# FECAL INCONTINENCE

Dietary/pharmacological:

Low fructose

Fiber supplementation, psyllium

Loperamid

Amitryptilin

Osmotic laxatives (overflow incontinence), suppositories/enemas

Biofeedback therapy/pretibial nerve stimulation:

Dextranomer injection

Skeletal muscle stem cell implantation

Surgery:

Sphincter repair, graciloplasty

Sacral nerve stimulation

## PATIENT EXPECTATIONS

- Frequency and urgency are most important characteristics
- Treatment success defined as  $\geq 75\%$  reduction in frequency
- $\geq 50\%$  reduction in frequency accepted as success by  $< 50\%$

Heymen S, Palsson O, Simren M, Whitehead WE. Patient preferences for endpoints in fecal incontinence treatment studies. *Neurogastroenterol Motil.* 2017 May;29(5). doi: 10.1111/nmo.13032. Epub 2017 Mar 8.