Chronic anal pain: diagnosis and management

Charles Knowles

Faculty of Medicine & Dentistry, Queen Mary University of London
Barts Health NHS Trust
Cleveland Clinic London
St Marks Hospital

Barts and The London School of Medicine and Dentistry

Cleveland Clinic London

Disclosures

Company	Consultancy	Speaker fees	Research funding	Research collaboration	Share holder, director
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Amber Therapeutics			x	x	x
Saluda Medical	x		x	x	
Cook Myosite	x			x	
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Motilent				x	
Enteromed	x			x	
JEB Medical				x	
usMIMA	x				

PATIENT WITH ANAL PAIN

Short history
anal fissure

Long history
no anal fissure

Chronic anal and perineal pain

- Common
- Heart-sink patients
- Multiple clinical opinions: colorectal, urology, gynaecology
- Multiple futile investigations (esp. colonoscopy)
- Multiple futile surgeries e.g. EUA and biopsies, haemorrhoidectomy, mucosal prolapsectomy and sphincterotomy


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REVIEW

Charles H. Knowles, PhD, FRCS, FACCRS (Hons)
Consultant Colorectal Surgeon, Cleveland Clinic London, UK;
Professor of Surgery, Queen Mary University of London, London, UK;
Professor of Experimental Therapeutics, University College London;
Hon. Consultant Colorectal Surgeon, St Marks Hospital, London, UK;
Hon. Professor of Colorectal Surgery, University of Antwerp, Antwerp, Belgium

Richard C. Cohen, MD, FRCS
Consultant Colorectal Surgeon, Cleveland Clinic London, UK;
Professor of Colorectal Surgery, University College London, London, UK

Chronic anal pain: A review of causes, diagnosis, and treatment

Chronic anal and perineal pain: diagnostic categories

Syndrome	Aetiology	Causal relationship	Epidemiology
Local anorectal conditions	Local inflammation, fissue, piles, fistula, tumour etc.	Usually evident	Very common
Functional anorectal pain syndromes	Neuromuscular – peripheral and central (psychosomatic)	Weak – poorly understood	Uncommon
Chronic perineal pain syndromes with some structural basis	Mostly neuropathic pain	Controversial	Rare

Chronic anal and perineal pain: local anorectal conditions

Local acute causes of (significant) anal or anorectal pain

Anal causes

- Fissure
- Perianal sepsis – esp. inter-sphincteric abscess
- Haemorrhoids (only if thrombosed)
- Other ulcers: Crohn's, TB, HIV, chancre, herpes, drug-induced (nicorandil)
- Anal tumour

Rectal causes

- Severe proctitis (any cause)
- Solitary rectal ulcer (uncommon)
- Low rectal or retro-rectal tumour

Pitfalls in acute anal pain management

Scenarios

- Previous "known anal fissure", continuing symptoms and no fissure
  [ill advised surgery $$]
- Unable to examine due to pain

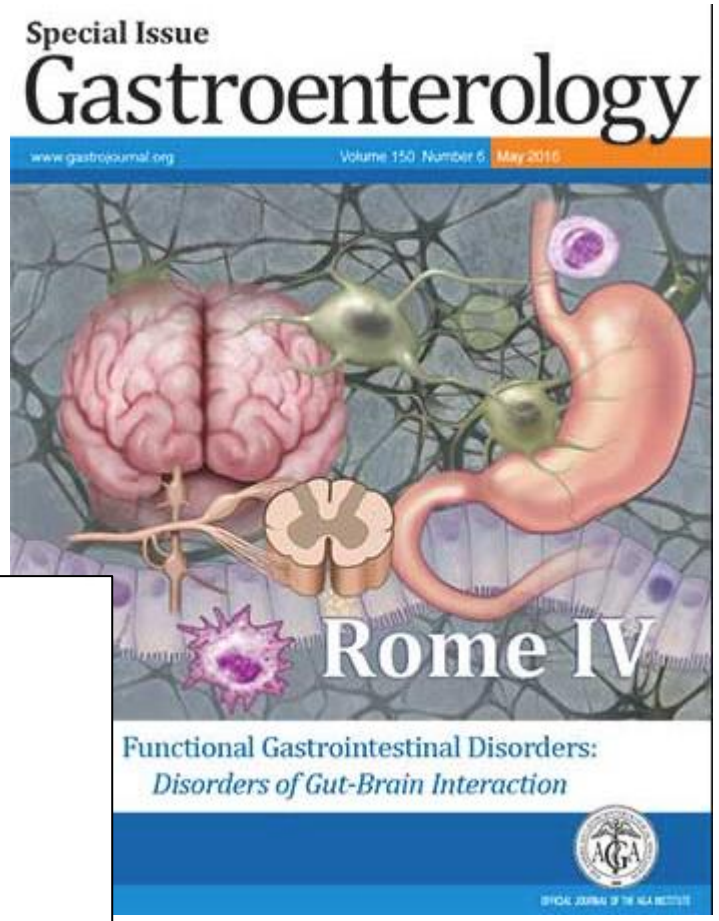
  [missed cancer $$$]

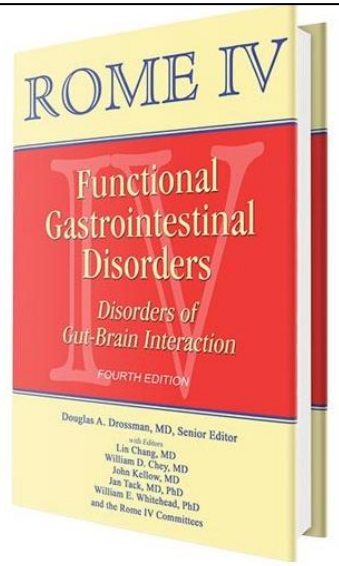
My opinion

- Low threshold for EUA and sigmoidoscopy
- MRI if no cause found

Functional anorectal pain syndromes

ROME FOUNDATION





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Baltimore, MD, USA

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Professor of Gastroenterology and Hepatology
Mayo Graduate School of Medicine, Mayo Clinic College of Medicine
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Azienda Ospedaliera Universitaria Integrata di Verona
Verona, Italy
Division of Gastroenterology and Hepatology
UNC Center for Functional GI and Motility Disorders
University of North Carolina at Chapel Hill
Chapel Hill, NC, USA

Charles H. Knowles, PhD
Clinical Professor of Surgical Research and Honorary Consultant Colorectal Surgeon, Barts Health NHS Trust
The Blizard Institute
Barts and the London School of Medicine and Dentistry
Queen Mary University of London
London, UK

Allison Malcolm, MD, MBBS, FRACP
University of Sydney and Royal North Shore Hospital
Sydney, NSW, Australia

Arnold Wald, MD
Professor, Division of Gastroenterology and Hepatology
University of Wisconsin School of Medicine and Public Health
Madison, WI, USA

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Director, Center for Motility and Functional GI Disorders
Director, Functional Abdominal Pain Program
Associate Professor of Pediatrics
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Functional anorectal pain syndromes x 3

Syndrome	Assumed aetiology	Main symptoms	Digital Rectal Exam
Proctalgia Fugax	Unknown	Short-lasting (seconds or minutes) sharp deep rectal stabling or cramping. No radiation. No anorectal pain between episodes	No finding
Levator Ani Syndrome	Pelvic Floor Muscle Spasm	Chronic (> 30 minutes) dull rectal ache or pressure sensation. Radiation to buttock, vagina, thigh. Other functional diagnoses +	Tender puborectalis, replicates pain (usually left side)
Unspecified Functional Anorectal Pain	Psychosomatic	Chronic (> 30 minutes) dull rectal ache or pressure sensation. Other functional diagnoses ++	No finding

Bharucha, Knowles *et al*., Rome IV functional anorectal disorders. Gastroenterology 2017
Knowles & Cohen. Chronic anal pain: A review of causes, diagnosis and treatment. CCJM 2022; 89: 336-343

Management: proctalgia fugax

- Harmless, unpleasant and incurable[1]
- To brief or infrequent for remedy
- Re-assurance and explanation
- Drugs: salbutamol inhalation [RCT][2]; clonidine[3], GTN [historical: chloroform]
- Antidepressants or anti-anxiolytics

1. Douthwaite AH. *Br Med J* 1962: 2: 164-165.
2. Eckhardt et al., *Am J Gastreoenterol* 1996; 91: 686-689
3. Swain R. *Gut* 1987; 28: 1039-40.

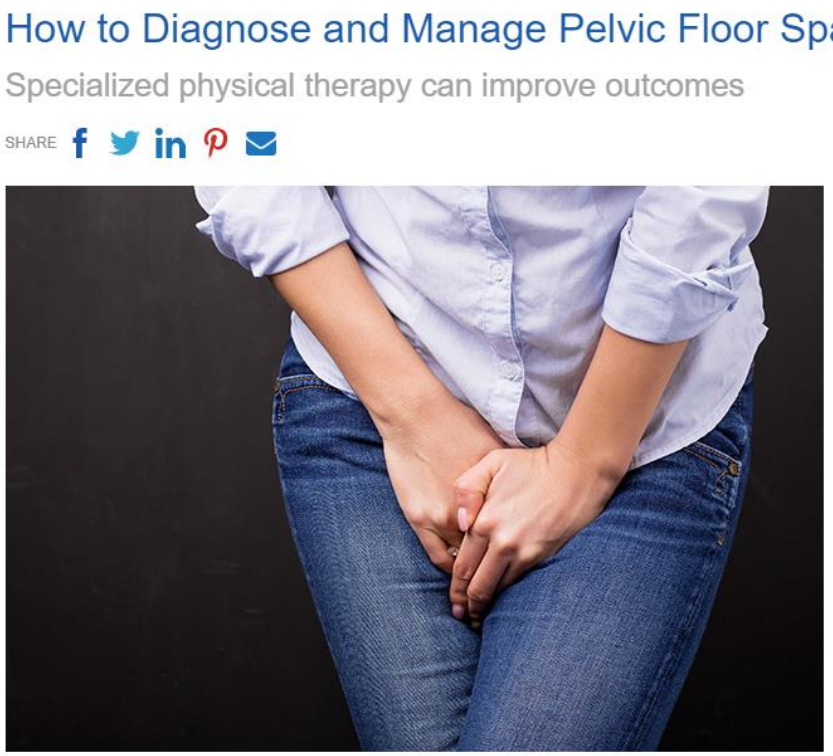
Management: levator ani syndrome

Treatments for levator ani syndrome

Category	Examples	Level of Evidence	Comments
Behavior therapy	Biofeedback to improve defecation dynamics	B	Most effective treatment for LAS in single RCT[14]
Muscle relaxant	Electrogalvanic stimulation	B	More effective than massage in single RCT[14]; benefits decrease in long-term
Muscle relaxant	Diazepam	C	Poorly effective in the long-term; addictive potential
Muscle relaxant	Digital massage of puborectalis muscle	D	No standardized methodology; often provided with sitz bath
Anticholinergic	Botulinum toxin A injection	B	Ineffective as transvaginal or transanal injection in three RCTs[11–13]
Anti-inflammatory	Pelvic floor muscle steroid Injection	D	Equally effective as physiotherapy in pilot RCT[15]
Antidepressants	Amitriptyline	D	Unclear mechanism of action; diverse dosage
Neuromodulation	Sacral neuromodulation	D	Conflicting results in small observational studies

LAS = levator ani syndrome; RCT = randomized controlled trial

Pelvic floor myofascial pain: physiotherapy



- Myofascial release
- Posture improvement
- Muscle-stretching *

- 80% improvement rate
- Adjuncts: LA injection; electrogalvanic therapy

Anderson RU, Wise D, Sawyer T, et al. 6-day intensive treatment protocol for refractory chronic prostatitis/chronic pelvic pain syndrome using myofascial release and paradoxical relaxation training. J Urol*. 2011 Apr;185(4):1294-1299.*

* not Kegel strengthening

Management: functional anorectal pain syndromes

Randomized, controlled clinical trials of treatments for chronic anal pain

Author, year	Diagnosis	Intervention	Comparator(s)	Main findings
Eckardt et al 1996[10] N = 16 (crossover)	Proctalgia fugax	Inhaled salbutamol	Placebo	Salbutamol shortened duration of severe pain vs placebo ($P = .019$); effect most marked in patients having prolonged attacks
Abbott et al 2006[11] N = 60	Pelvic floor myofascial pain	Botulinum toxin A; pelvic floor injection	Placebo: saline injection	Significant reductions in dyspareunia and pelvic floor pressure with both botulinum toxin and placebo
Dessie et al 2019[12] N = 59	Myofascia pelvic pain	Botulinum toxin A; pelvic floor injection	Placebo: saline injection	No significant clinical effect
Rao et al 2009[13] N = 10[a] (crossover)	Levator ani syndrome	Botulinum toxin A; transanal injection	Placebo	No effect of either botulinum toxin or placebo
Chiarioni et al 2010[14] N = 157	Levator ani syndrome	Biofeedback	EGS; levator muscle massage	12-month results Pain days: 14.7 (baseline) 3.3 (biofeedback) vs 8.9 (EGS) and 13.3 (massage) Pain intensity: 6.8 (baseline) 1.8 (biofeedback) vs 4.7 (EGS) and 6.0 (massage) Adequate relief: 87% (biofeedback) vs 45% (EGS) and 22% (massage)
Zoorob et al 2015[15] N = 29	Levator ani syndrome	Steroid injections in levator ani trigger points	Pelvic floor physiotherapy	Both groups improved equally (60% achieved 50% reduction in symptoms)

[a]Only 7 had complete data.
EGS = electrogalvanic stimulation

V small study

BOTOX: Conflicting poor-quality evidence

Biofeedback: only credible trial in the field

Small study: no effect

Chronic perineal pain syndromes with some structural basis

Chronic pain syndromes with some structural basis x 3

Syndrome	Assumed aetiology	Symptoms	Digital Rectal Exam
Coccygodynia	Coccyx trauma	Perineal pain triggered by sitting	Tender on pressure / manipulation of coccyx
Pudendal Neuralgia	Pudendal nerve entrapment	Unilateral perineal pain with paresthesia. Worse on sitting. Nantes criteria	Uneventful
Neuropathic pain syndromes (phantom rectum syndrome; paroxysmal extreme pain disorder)	Neuropathic (genetic)	Specific to disorder	Specific to disorder

Chiarioni & Whitehead in: Surgery Anus, Rectum and Colon. 4th edition.

Diagnosis : coccygodynia

- Positional pain arising ‘in or around’ coccyx.
- Aetiology: trauma including childbirth, epidural anaesthesia
- Risk factors: female, obesity, anxiety, depression, chronic pain
- Pathophysiology: pelvic floor spasm vs. coccyx instability
- Examination: instability (+ exclude levator ani syndrome)
- Dynamic X-ray (50%)

Traycoff *et al*. *Orthopedics* 1989: 12: 1373-1377.
Chiarioni & Whitehead in Surgery Anus, Rectum and Colon. 4th edition.
Karadimas *et al*., Eur Spine J 2011; 20: 698-705.

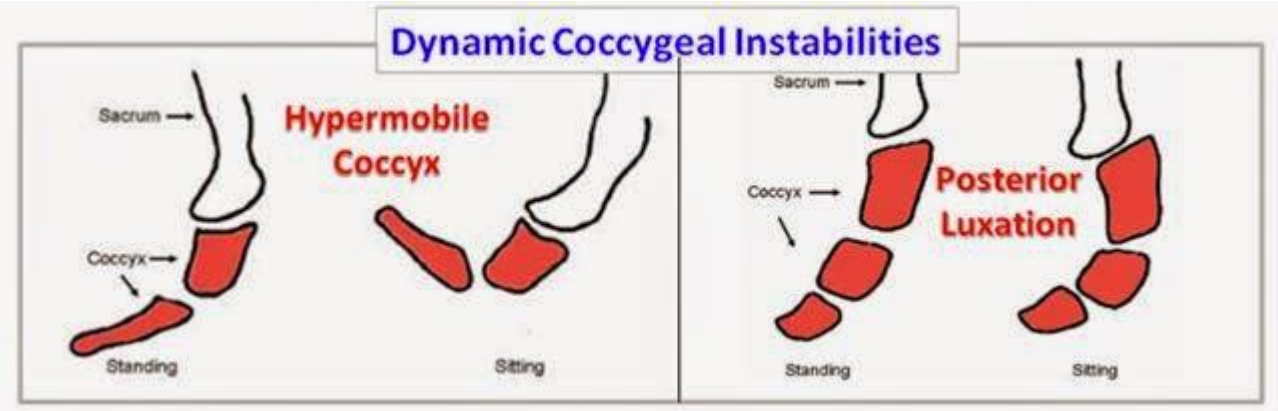


Fig. 1a

Fig. 1b

Fig. 2a

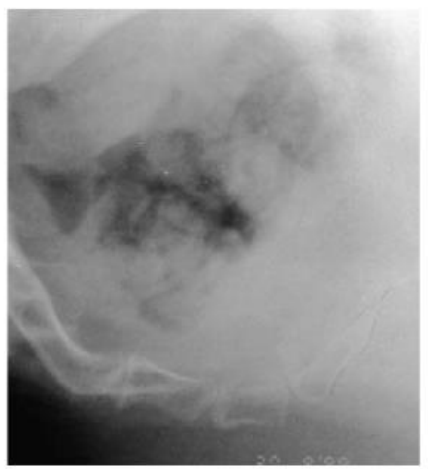


Fig. 2b

Management: coccygodynia

- Pelvic floor physiotherapy (assessment and manipulation)
- Coccygectomy

Maigne *et al*., *Spine* 2006; 31: 621-627
Karadimas *et al*., *Eur Spine J* 2011; 20: 698-705.

Diagnosis : pudendal neuralgia

- Pudendal nerve entrapment in Alcock's canal
- Rare but often self-diagnosed by "google search"
- Typically unilateral
- Nantes criteria

Nantes criteria for pudendal neuralgia by pudendal nerve entrapment

Essential criteria

- Pain in the pudendal nerve area from the anus to the penis or clitoris
- Pain is predominantly experienced while sitting
- Pain does not wake the patient at night
- Pain with no objective sensory impairment
- Pain is relieved by diagnostic pudendal nerve block

Complementary diagnostic criteria

- Burning, shooting, stabbing pain, numbness
- Allodynia or hyperalgesia
- Rectal or vaginal foreign body sensation
- Worsening of pain during the day
- Predominantly unilateral pain
- Pain is triggered by defecation
- Presence of exquisite tenderness on palpation of the ischial spine
- Clinical neurophysiology findings in men or nulliparous women

Exclusion criteria

- Exclusively coccygeal, gluteal, pubic, or hypogastric pain
- Pruritus
- Exclusively paroxysmal pain
- Imaging abnormalities able to account for the pain

Proper neurology then consider cauda equina syn.

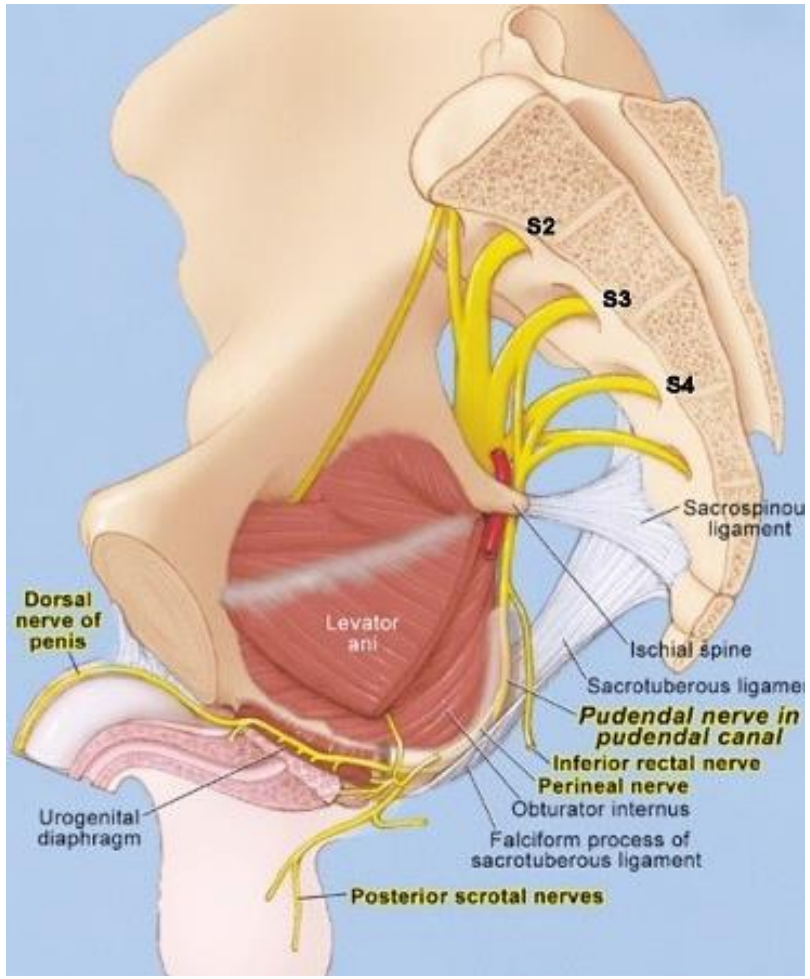
Not an exact science

Ultimate diagnosis = resolution by surgery

Labat *et al.*, *Neurourol Urodyn* 2008; 27: 306-10

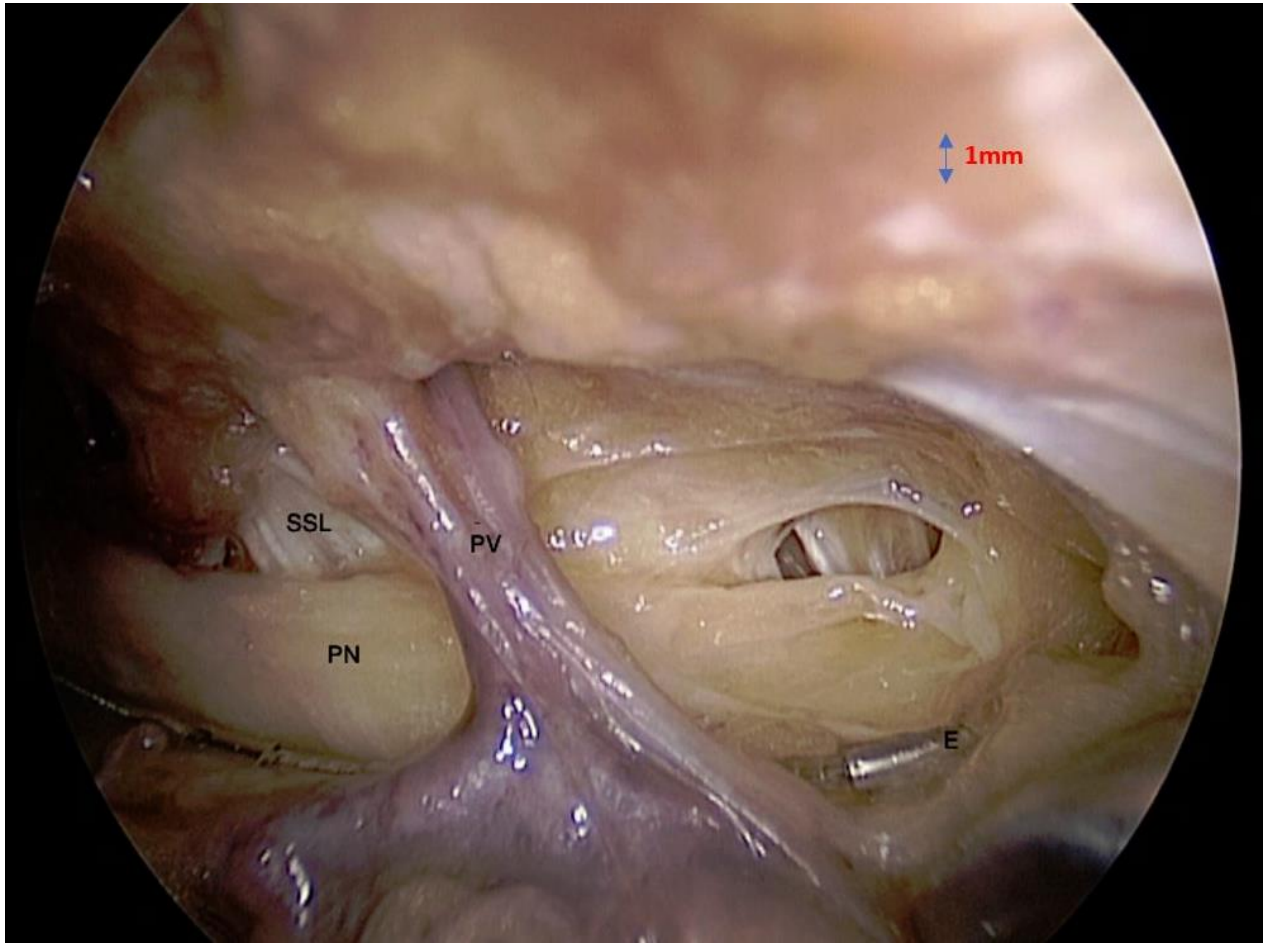
Management: pudendal neuralgia

- Pudendal nerve block
- Open pudendal nerve release



Management: pudendal neuralgia

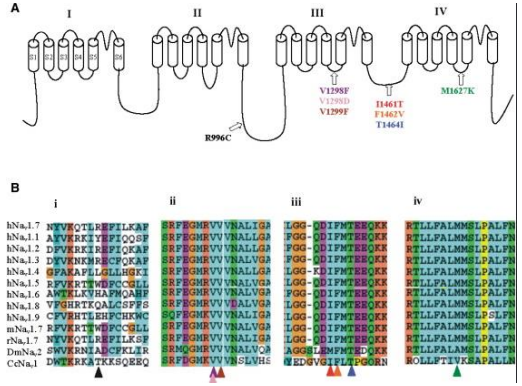
- Endoscopic release
- Pudendal nerve stimulation

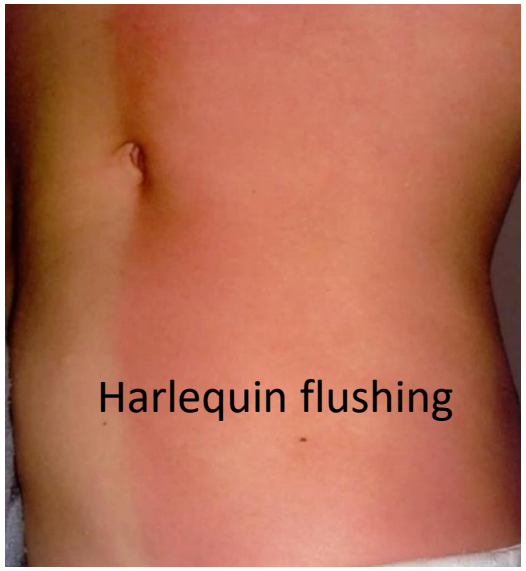


Jottard K *et al.*, IJCRD 2020; 35: 361-364.
Jottard K *et al.,* Neurourol Urodyn 2020; 39: 2003-7

Neuropathic pain

- Post-proctectomy pain (phantom rectum syndrome)
- Paroxsymal extreme pain disorder (familial rectal pain syndrome) SCN9A mutation ($Na_V1.7$)
- Unexplained (but often some spinal problem)





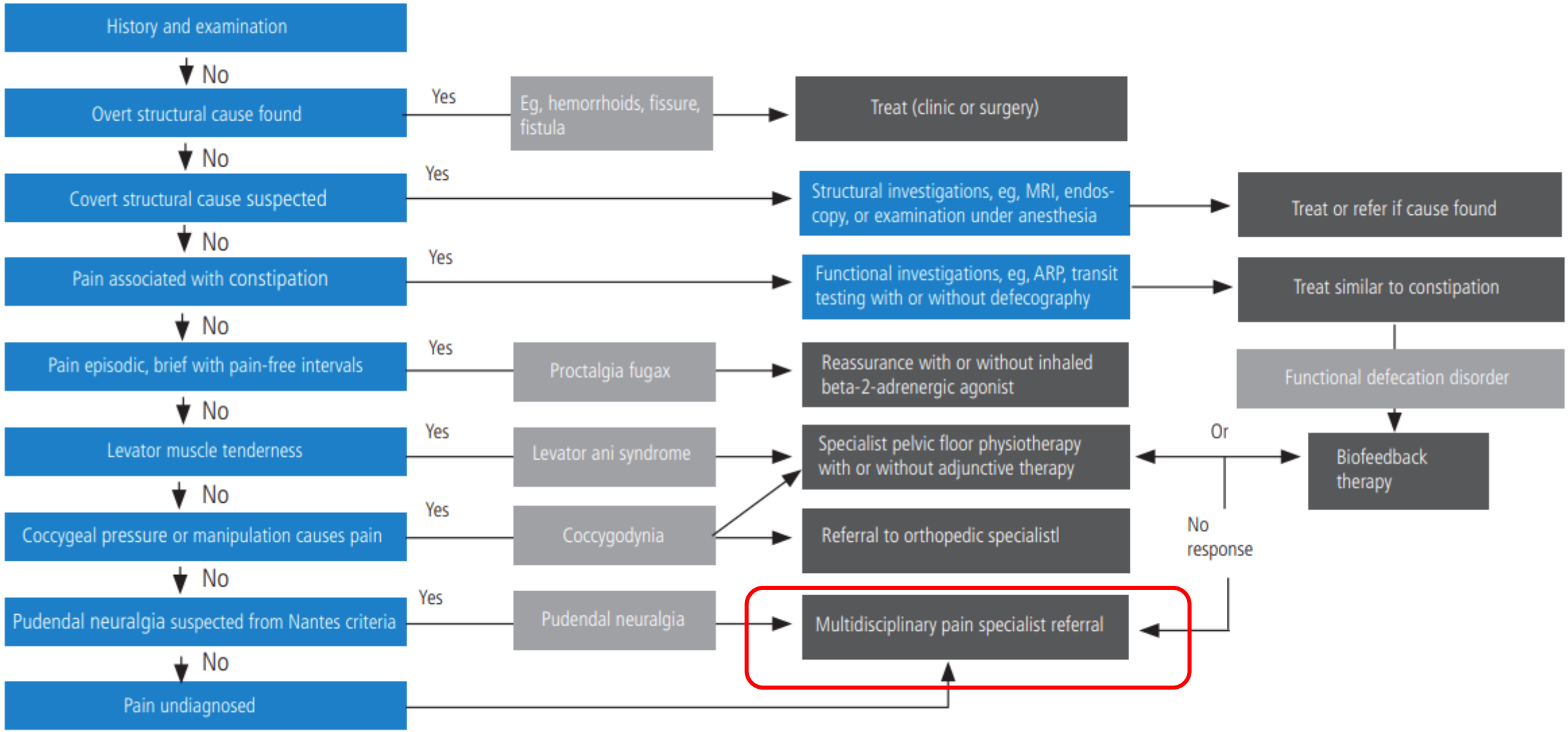
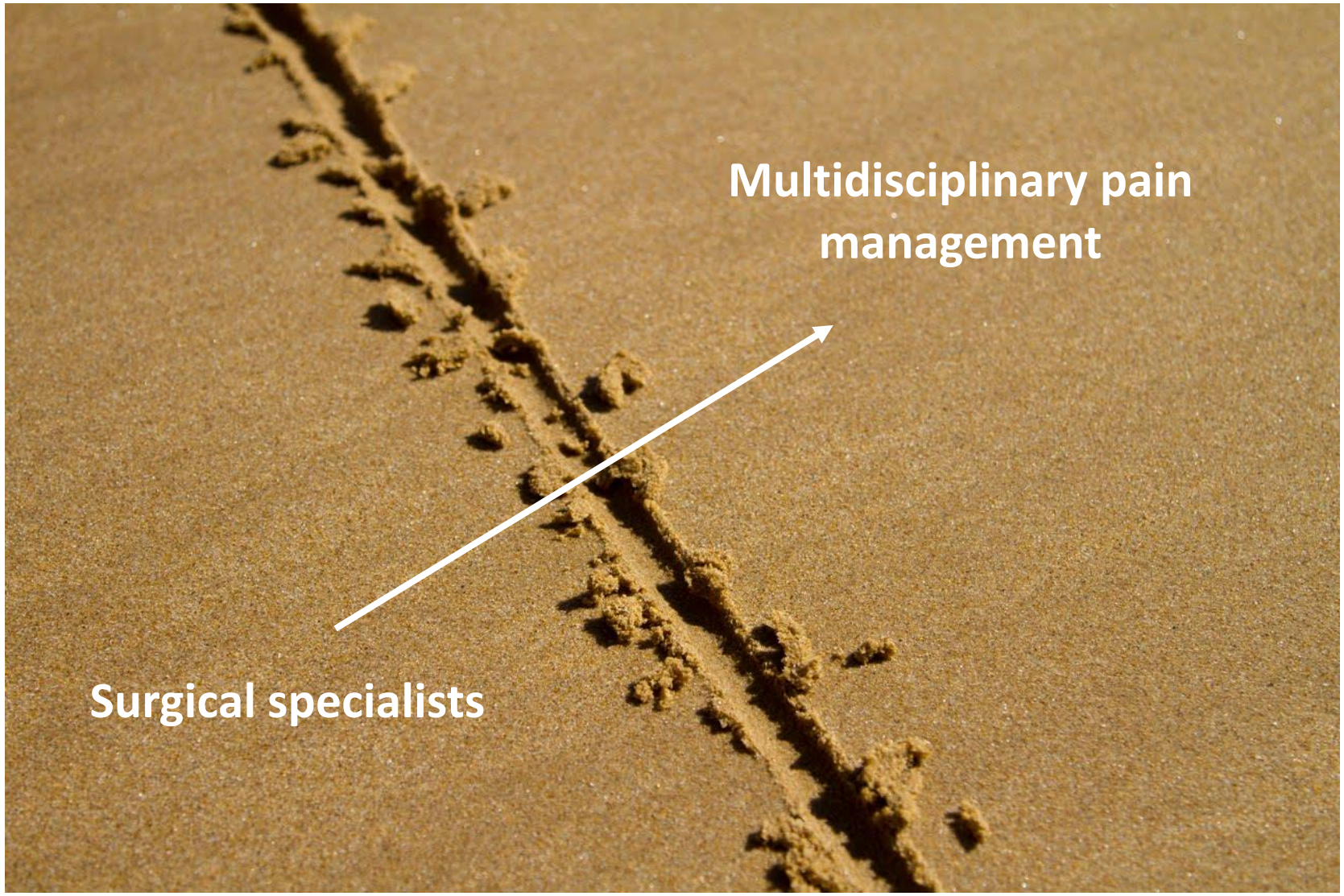


Figure 1. Algorithm for diagnosis and management of chronic anal pain.

The line in the sand



Summary

- Don’t despair
- 3 diagnostic groups & 3 diagnoses per group
- Focussed history > examination > tests provides working diagnosis and management algorithm