Pelvi-perineal myofascial syndromes: clinical presentation, differential diagnosis and electrophysiological characteristics

An advanced diagnostic

Dr. Zarza

Dr. Itza
There's an elephant in this room.

MYOFASCIAL SYNDROME
what we need?
Epidemiology

- Of 283 consecutive admissions to a pain clinic, 85% were diagnosed as suffering from myofascial syndrome somewhere in the body [1].
- In a multicenter study done in urological outpatient centers of 28 hospitals in Italy with 5,540 patients, the prevalence of the syndrome was 13.8% [2].

Specialists involved
Goals

• We present the typical symptoms of the myofascial pain syndromes in the pelvic floor

• We present advanced neurophysiological tests for getting a proper diagnosis

• We make a differential diagnostic
More frequent myofascial syndromes

- Levator ani syndrome
- Oblique abdominal syndrome
- Obturator internus syndrome
- Piriformis syndrome
- Bulbocavernosus syndrome
Levator ani syndrome

Anatomy

Referred pain pattern
Levator ani syndrome

Etiology of male
- Chronic bacterial prostatitis
- Chronic nonbacterial prostatitis-CPP
- Anorectal conditions
- Urological surgery
- Chronic constipation
- Sports injuries
- PNE
- Post PN decompression

Etiology of female
- Anorectal conditions
- Chronic constipation
- Episiotomy scars
- Sphincterotomy
- Urological surgery (mesh)
- Sports injuries
- PNE
- Post PN decompression
Levator ani syndrome

**Symptoms in male**
- Increased urinary frequency and urgency
- Sensation of a golf ball in the rectum.
- Pain during and after ejaculation.
- Pain after defecation.
- Pain referred to the perineum and the penis
- Pain when sitting

**Symptoms in female**
- Pain in vagina
- Pain in perirectal area
- Pain or discomfort in the lower abdomen.
- Increased urinary frequency and urgency.
- Pain when sitting
Levator ani syndrome - highlights

• It's the most common myofascial syndrome in patients with CPP (almost 100% of cases)

• Most important location of TrPs in men with CPP.

• Be careful with scars of episiotomy, it can simulate PNE in some cases.

More frequent myofascial syndromes

• Levator ani syndrome
• Oblique abdominal syndrome
• Obturator internus syndrome
• Piriformis syndrome
• Bulbocavernosus syndrome
Oblique abdominal syndrome

Referred pain pattern

Anatomy
Oblique abdominal syndrome

Etiology

- Inguinal herniorrhaphy
- Appendectomy
- Orchiectomy
- Caesarean section
- Trauma
- Sports injuries
- Pelvic surgery
- TVT, TOT

Symptoms

- Pain irradiation to the external genitalia (testicles, labia majora)
- Pain in abdominal wall
- Pain in the lower abdomen
Oblique abdominal syndrome - highlights

- Some patients have undergone surgery unnecessarily (orchiectomy)
- Many times it is associated to iliohypogastric and/or ilioinguinal neuropathy.
- Sometimes it is associated to iliohypogastric and/or ilioinguinal entrapment

Abdominal myofascial pain syndrome must be considered in the differential diagnosis of chronic pelvic pain.
More frequent myofascial syndromes

- Levator ani syndrome
- Oblique abdominal syndrome
- Obturator internus syndrome
- Piriformis syndrome
- Bulbocavernosus syndrome
Anatomy

Referred pain pattern

Obturator internus syndrome
Obturator internus syndrome

Etiology

- CBP
- CNBP-CPP
- Anorectal conditions
- Urological surgery (mesh, TOT, TVT)
- Sports
- PNE
- Post PN decompression

Symptoms

- Sensation of a golf ball in the rectum
- Pain down to the back of the thigh
- Vaginal and vulvar pain.
- Urethral pain in women.
- Pain in the entire pelvic floor.
Obturator internus syndrome -highlights

- May simulate PNE, the nerve and the muscle are closely related, palpation of the area causes burning and intense pain.
- Related to PNE (Alcock's canal)
- Typical complication of PN decompression
- Multiple associations with other syndromes

Myofascial pain syndrome affecting the piriformis and the obturator internus muscle.
More frequent myofascial syndromes

- Levator ani syndrome
- Oblique abdominal syndrome
- Obturator internus syndrome
- Piriformis syndrome
- Bulbocavernosus syndrome
Referred pain pattern
Piriformis syndrome

Etiology

- Muscle overload
- Trauma
- Sports injuries
- Nerve and vascular entrapment by piriformis

Symptoms

- Pain in low back
- Pain in perineum
- Dyspareunia
- Erectile dysfunction
- Pain in buttock and hip
- Pain during defecation
- Pain in posterior thigh and leg
Piriformis syndrome - highlights

- PS frequently simulates a pseudo sciatica
- Could cause several entrapments:
  - Sciatic nerve
  - PNE
  - Gluteal nerves
  - Posterior femoral cutaneous nerve

More frequent myofascial syndromes

- Levator ani syndrome
- Oblique abdominal syndrome
- Obturator internus syndrome
- Piriformis syndrome
- Bulbocavernosus syndrome
Bulbocavernosus syndrome

Etiology

- Rare alone, usually associated to other myofascial pain syndromes
- Vascular disease (varicose)
- Pudendal neuropathy
- Overactive bladder
- Associated to PNE (an Aix-en-Provence criteria)
- Post menopausal women

Symptoms

- Pain in the base of the penis and perineum.
- Pain in the ventral aspect of the penis
- Erectile dysfunction
- Dyspareunia (female)
- Pain in perineum (female)
- Sexual arousal out of sexual context
Bulbocavernosus syndrome - highlights

• The former persistent sexual arousal syndrome currently renamed as persistent genital arousal disorder or restless genitalia syndrome

• The patients feel sexual arousal in absence of desire.

Differential diagnosis

- Polyneuropathy, starting with pudendal neuropathy
- Vascular disease, starting with pudendal neuropathy
- Ilioinguinal neuropathy, simulating a testicular pain problem
Case nº1

- Male
- 54, lives in Colombia
- History of hypothyroidism
- Started with typical pain of pudendal neuropathy (when sitting, anal burning, penis pain, etc.)
- Treatments: PN blocks, anticonvulsants, etc.. No results
Neurophysiological findings:

Polyneuropathy

Right DMLPN (2.0 ms) normal
Left DMLPN (2.0 ms) normal

PN sensory evoked potential
P40 (46 ms) delayed

External anal sphincter and levator ani muscle
Turns/ amplitude Index: normal

Diminished sensory conduction velocities of the left and right soleus muscles
Case nº2

- Female
- 37, lives in Argentina
- Started with pain in the clitoris on the right side, when she was a child. No urinary problems. No sex possible
- Treatments: ADT, anticonvulsants, etc..
  
  No results
Neurophysiological findings:

Vascular disease

- Right DMLPN (2.6 ms) delayed
- Left DMLPN (2.0 ms) normal

- Left PN sensory evoked potential
  P40 (65 ms) delayed
- Right PN sensory evoked potential
  P40 (40 ms) normal

Right pelvic varicocele is associated with vessels around the right vulvar and vaginal region.
Case nº3

- Male
- 25, lives in Spain
- Muscle overload, sports injury
- Started with testicular pain
- Different treatments (including right varicocele operated, anticonvulsants, etc.)

No results
Neurophysiological findings:
Ilioinguinal neuropathy

Right sensory conduction velocity (32m/s) Diminished
Left sensory conduction velocity (45m/s) normal

External anal sphincter and levator ani muscle
Turns/ amplitude Index: abnormal
going one step further.....

Have a nice day and pleasant dreams