Intro to Pelvic Neuralgias

SPRING 2023

Jamie Hampton, DAOM, L.Ac

A quick intro about me and my work:

My name is

Jamie Hampton, DAOM, L.Ac

I have been in healthcare for over 22 years

An acupuncturist for 21 years

Specialzing in Dry Needling since 2006

Pelvic Floor Specialty since 2009

And the WHY of Pelvic Floor?

I realized very early on, that you CANNOT treat low back without treating the pelvis.

You CANNOT treat hip issues with out the treating the pelvis.

You CANNOT treat FERTILITY OR GI without treating the pelvis.

AND THERE WAS A GREAT NEED for it…..

AND STILL IS

NEURALGIA

At its simplest definition :

Pain along the nerve pathway

Merriam-Webster defines it as

“ acute paroxysmal pain radiating along the course of one or more nerves usually without demonstrable changes in the nerve structure”

And Medical Dictionary defines it as

“ an intense burning or stabbing pain caused by irritation of or damage to a nerve. The **pain** is usually brief but may be severe. It often feels as if it is shooting along the course of the affected nerve.

CAUSES

Causes :

- Infection
- Pharmacological
- Surgery
- Trauma

Pressure on nerves by nearby bone, ligaments, blood vessels, or tumors or other soft tissue (scars etc)

CAUSES

Continued..

Diabetes

Kidney Disease

MS/ALS

And some forms of chemical irritations

And in many cases the cause is simply unknown.

Sounds frustrating AND painful for your patients. Doesn’t it?

The truth with neuralgias, there are just so many different types of neuralgias, AND they can be extremely difficult to treat.

It is estimated ….

A study published recently in the Journal of Pain Research reported the prevalence of neuropathic pain/neaurlagias at **10%** in the US population.

The National Institute of Neurological Disorders and Stroke (NINDS) reported that 20 million Americans have some type of peripheral neuropathy/neuralgia Mar 20, 2018

But today though, I will introduce you to more specifically the lesser known PELVIC NEURALGIAS as well as what we have all heard and know

PUDENDAL NEURALGIA

Before we begin here are some BASIC functions of the pelvic floor and the anatomy so that we may better understand PELVIC NEURALGIAS and how to treat them

Functions of the Pelvic Floor

Just a quick note, you can see here

How some of these bubbles can

Relate to individual medical

Specialties:

1. Urology
2. Gastoenterology
3. Gynecology
4. Obstetrics

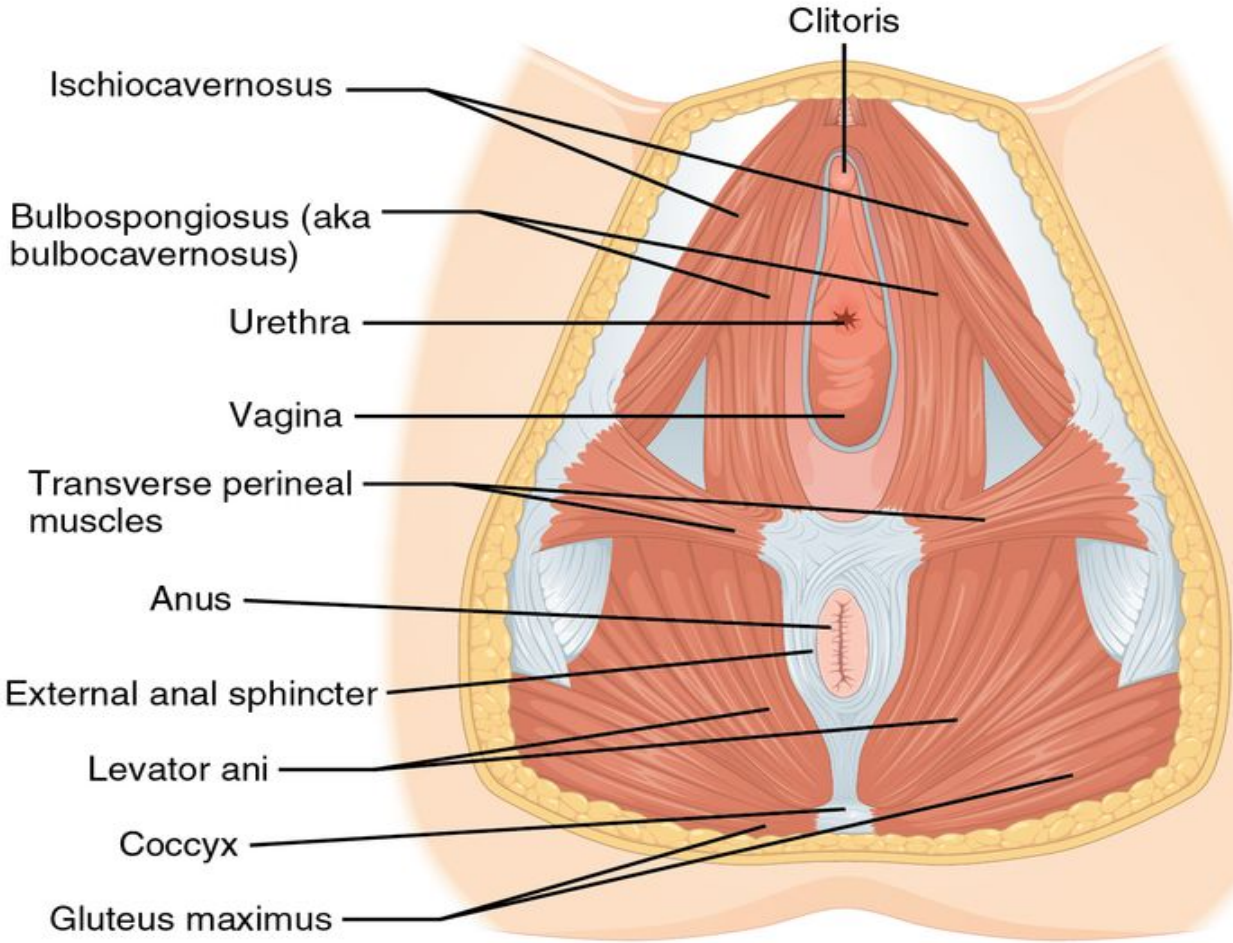
This **disjointedness** is a valid frustration for your patients.

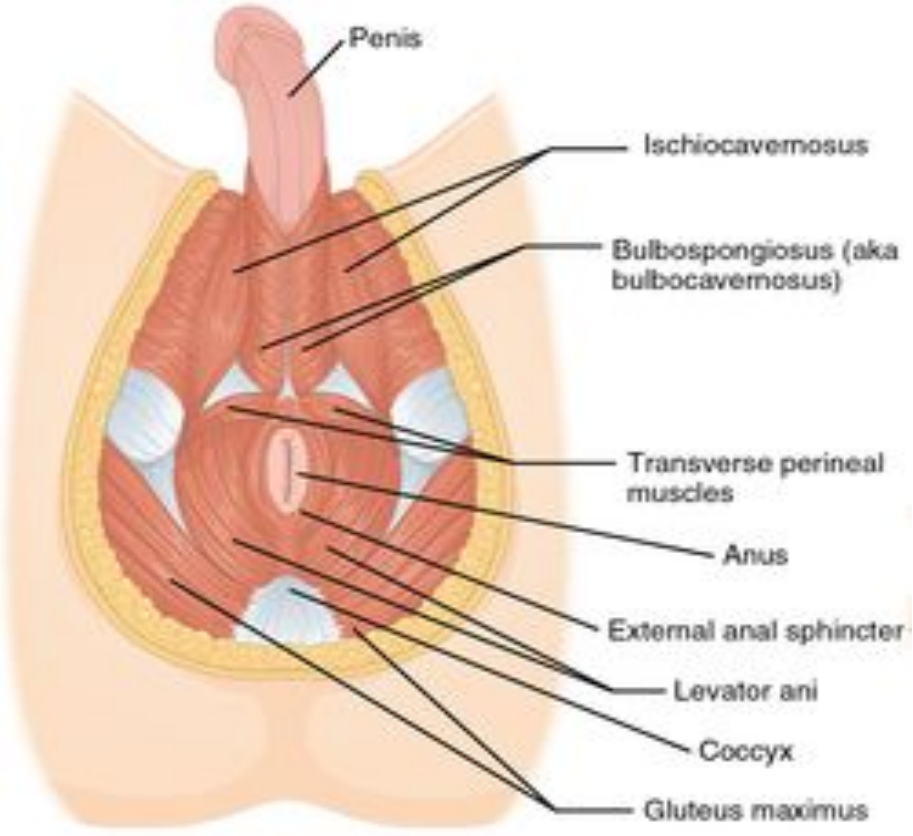
It not only costs MONEY but it also costs their TIME

And the average *pelvic floor patient* experience a major lapse in time of years from ONSET of the symptoms to diagnosis, then treatment.

On average 4.5-7 years for “general” pelvic pain issues

PF as a hammock




Penis
Ischiocavernosus
Bulbospongiosus (aka bulbocavernosus)
Transverse perineal muscles
Anus
External anal sphincter
Levator ani
Coccyx
Gluteus maximus

Bony Structures: 3 Innominate Bones:

1. Pubis
2. Ilium (attachment site for 28 different muscles)
3. Ischium

All three of these bones fuse together to make the acetabulum

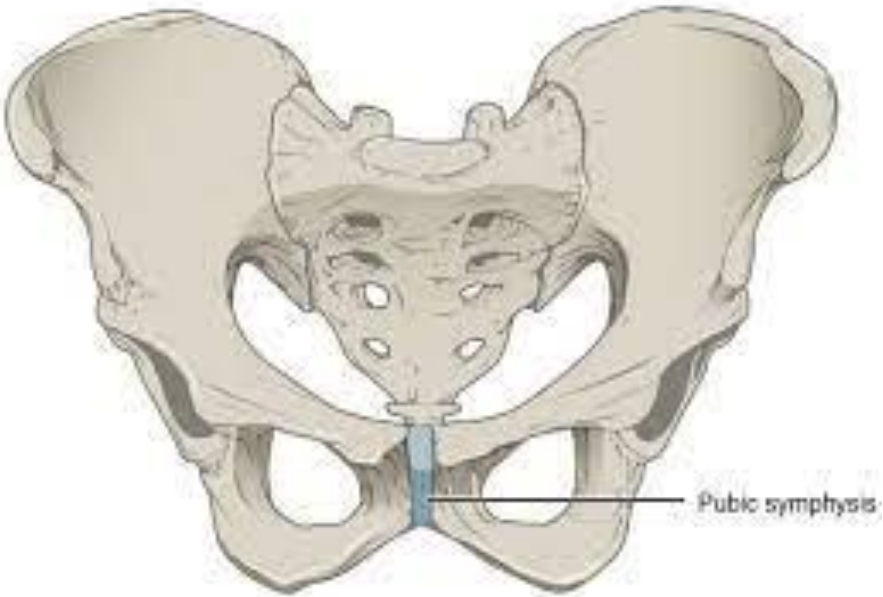
Pelvis

Ilium

Iscium

Pubus

Sacrum



Really the coccyx needs to be added into the mix as well.

Lets take a moment to discuss WHY the Coccyx is so important to the Pelvic Floor

Ancient greek for BEAK of the Cuckoo.

3-5 fused segments

Makes up the TRIPOD of the pelvic girdle in conjunction with the ischial tuberosities.

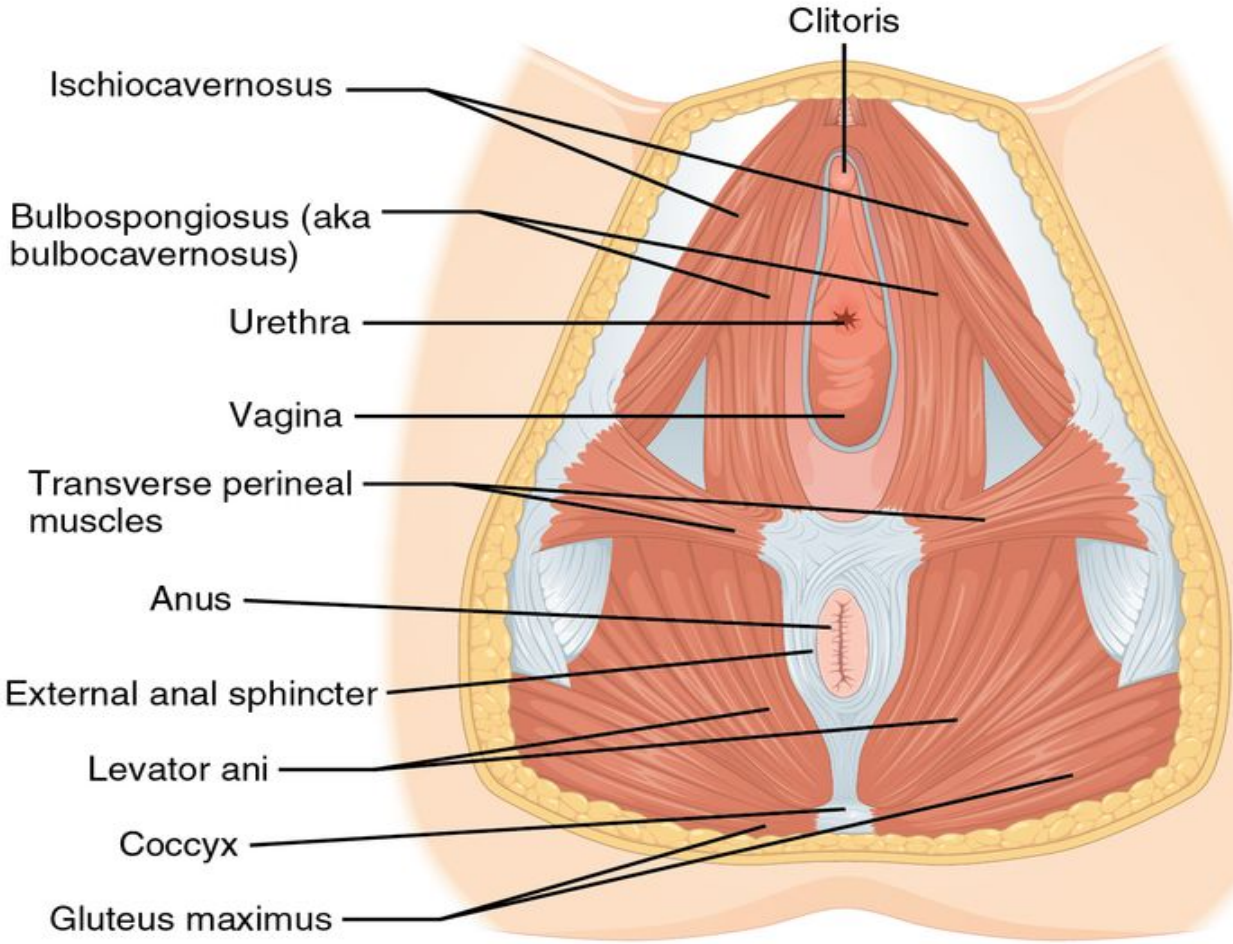
Is an anchor FOR MANY muscles and ligaments of the pelvic floor

Coccyx continued

lateral edges serve as insertion sites for the coccygeal muscles, the sacrospinous ligament, the sacrotuberous ligament, and fibers of the gluteus maximus muscle.

iliococcygeus muscle tendon inserts onto the tip of the coccyx. These ligaments and muscles help support the pelvic floor and also contribute voluntary bowel control

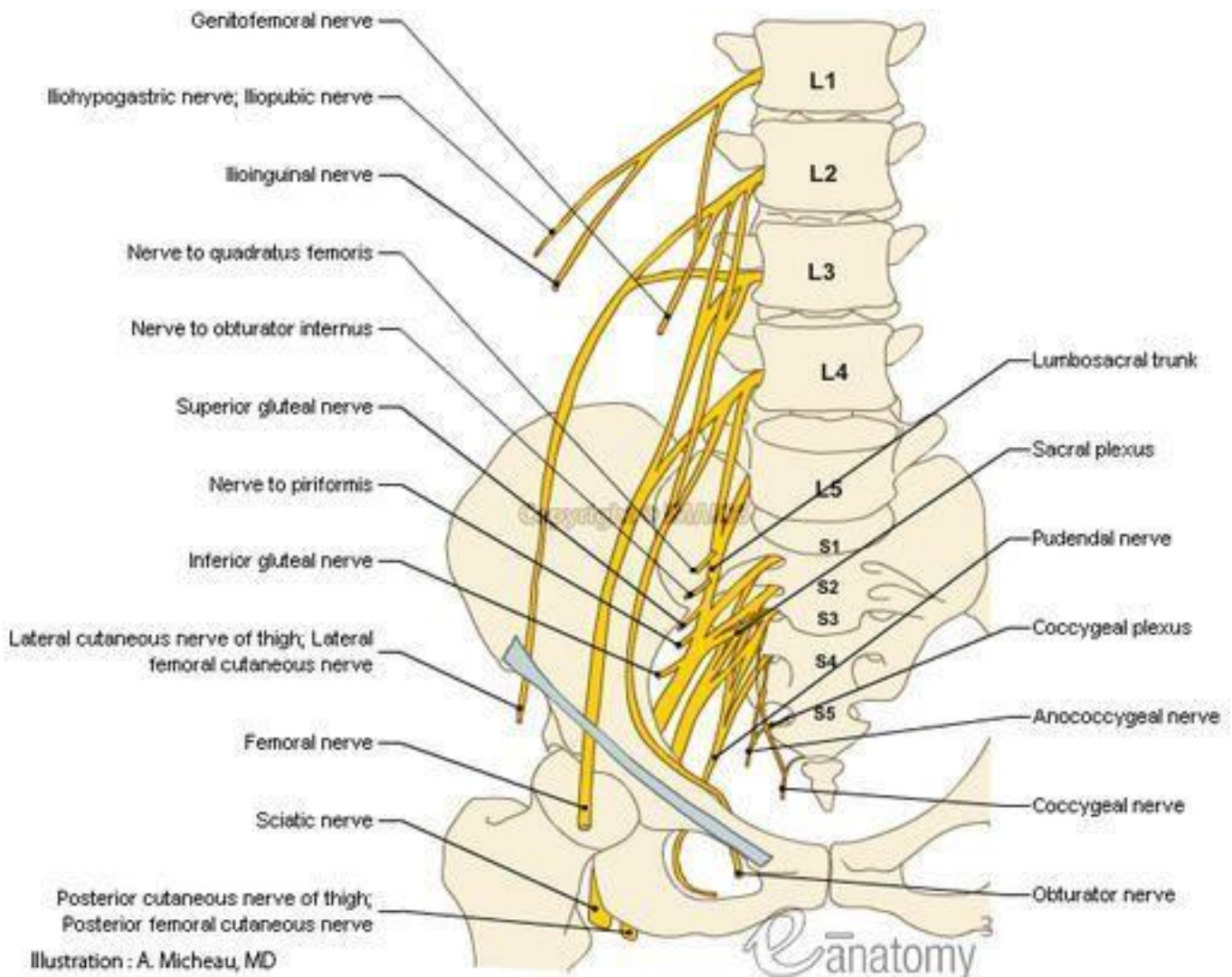
Coccyx


Clitoris
Ischiocavernosus
Bulbospongiosus (aka bulbocavernosus)
Urethra
Vagina
Transverse perineal muscles
Anus
External anal sphincter
Levator ani
Coccyx
Gluteus maximus

And then there is the all important nerve innervations

We can access these as one effective tool in treating PFD

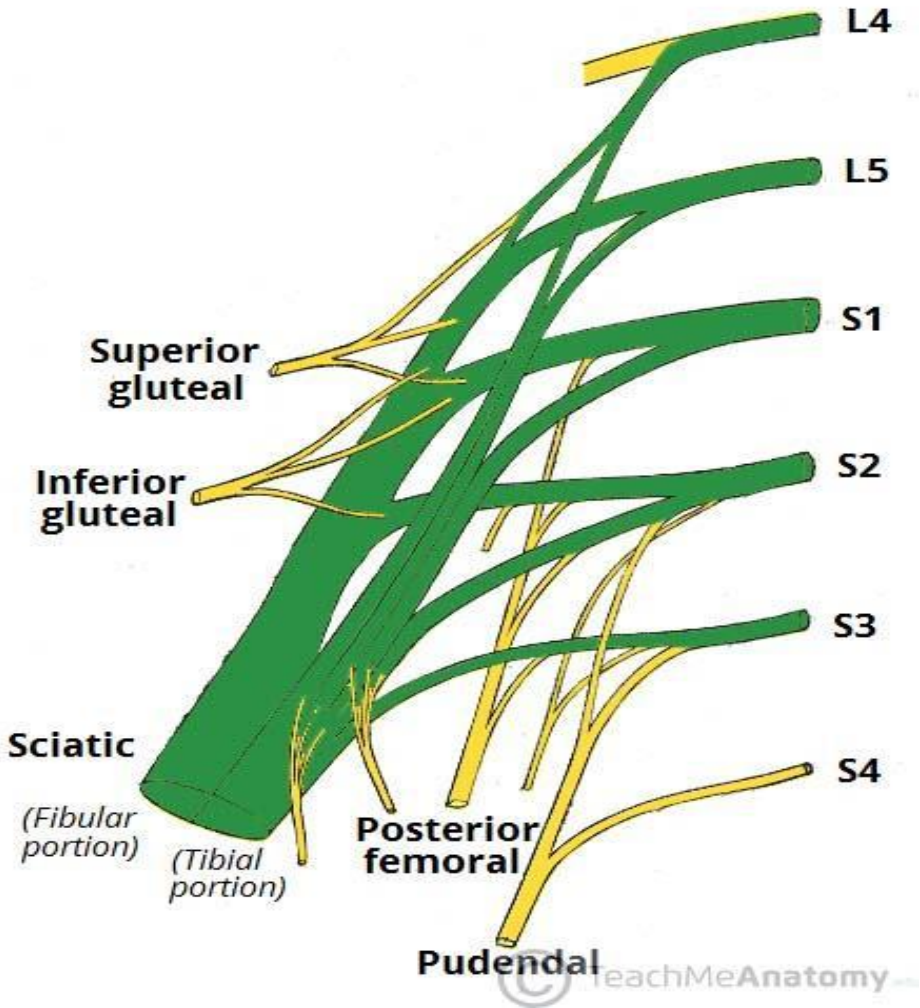
Nerve innervation

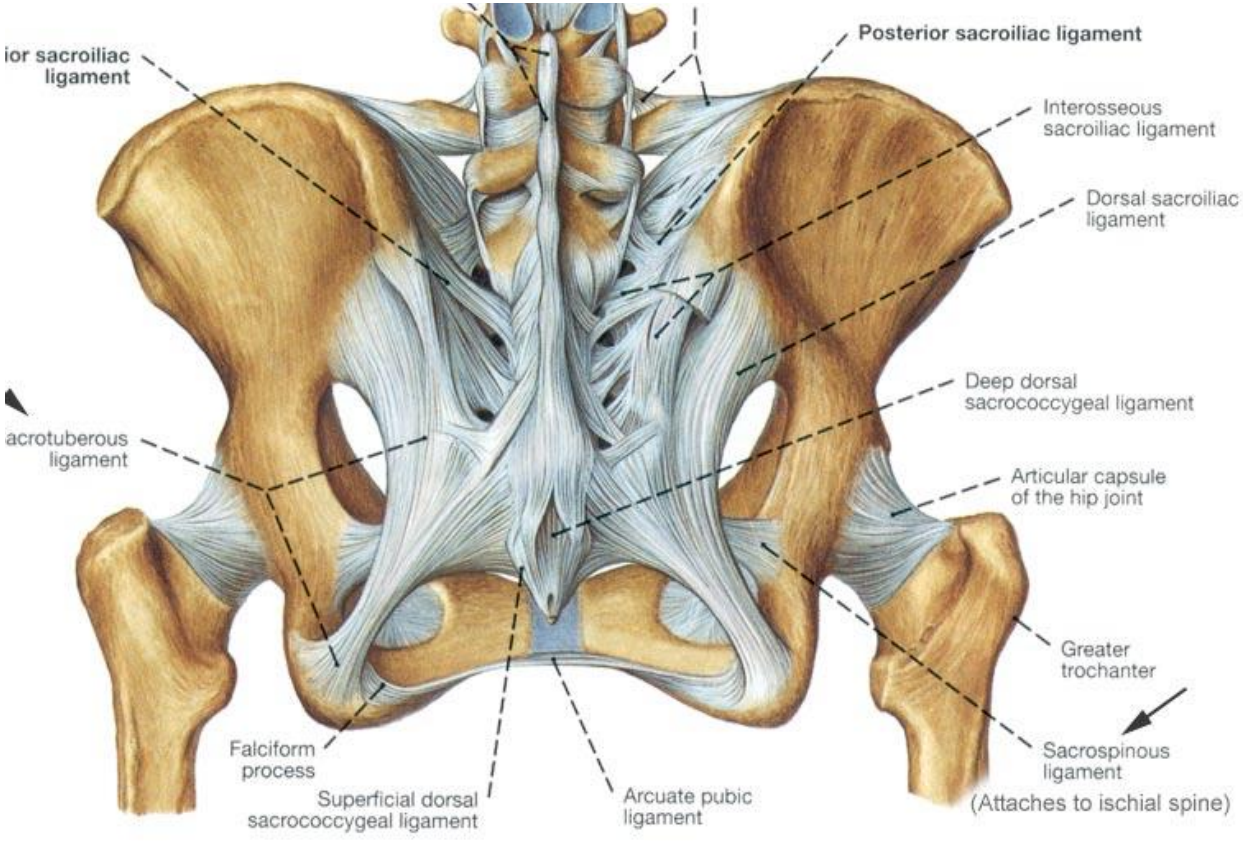


S2,3,4

KEEP THE POO

OFF THE FLOOR




ior sacroiliac ligament
Posterior sacroiliac ligament
Interosseous sacroiliac ligament
Dorsal sacroiliac ligament
Deep dorsal sacrococcygeal ligament
acrotuberous ligament
Articular capsule of the hip joint
Greater trochanter
Sacrospinous ligament
(Attaches to ischial spine)
Falciform process
Superficial dorsal sacrococcygeal ligament
Arcuate pubic ligament

So now we have a better idea of SOME of the things going on in the pelvis (not including endopelvic fascia, deep fascia, etc) we can begin to understand that there can and WILL be many variables to consider when we are working with out pelvic floor patients

We as practitioners can really broaden our treatments by effectively working on all these various forms of tissues:

Tendon needling

Neuropuncture

Scar tissue work

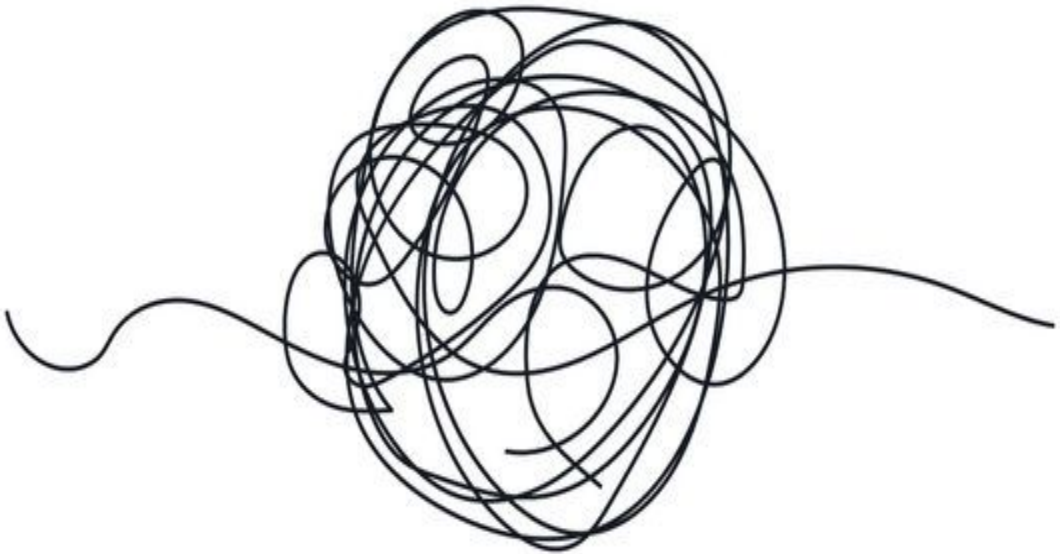
Fascial needling

MotorPoint

TriggerPoint

EA/Spinal Segments

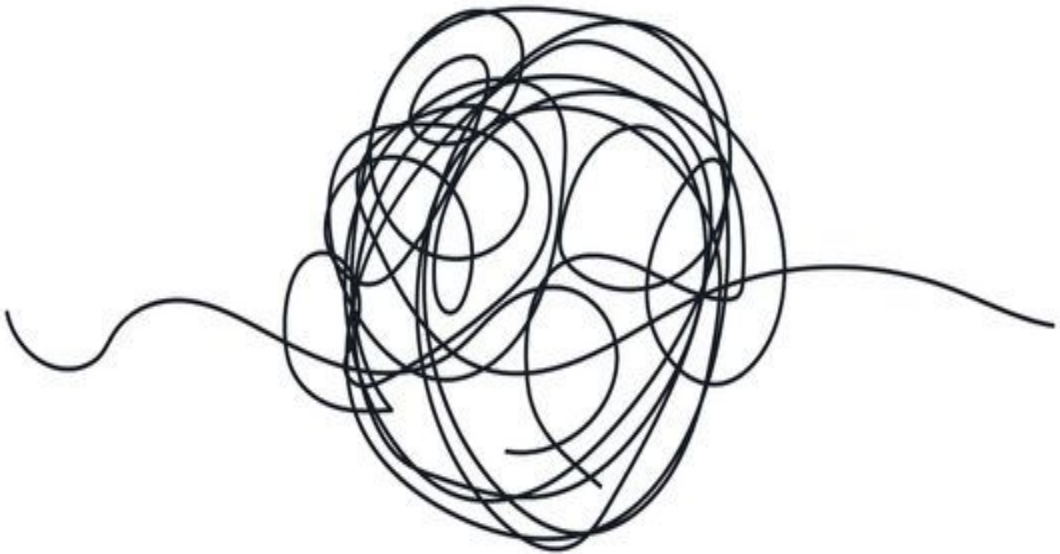
Pain



Back to Pelvic Neuralgia, pain in any of these instances can be from damaged or injured neuraxis at a variety of locations such as the CERBRAL CORTEX, SPINAL CORD,SPINAL SEGMENTS, SACRAL PLEXUS and/or peripheral nerves.

There can be multiple tissue involvement: ligament, muscle tissue (smooth and skeletal), fascia, tendon and/or inflammation

PAIN=



Pain is not linear, and always frustrating. We may not have answers for our patients, and that’s ok, but we certainly have an opportunity to always help them feel better.

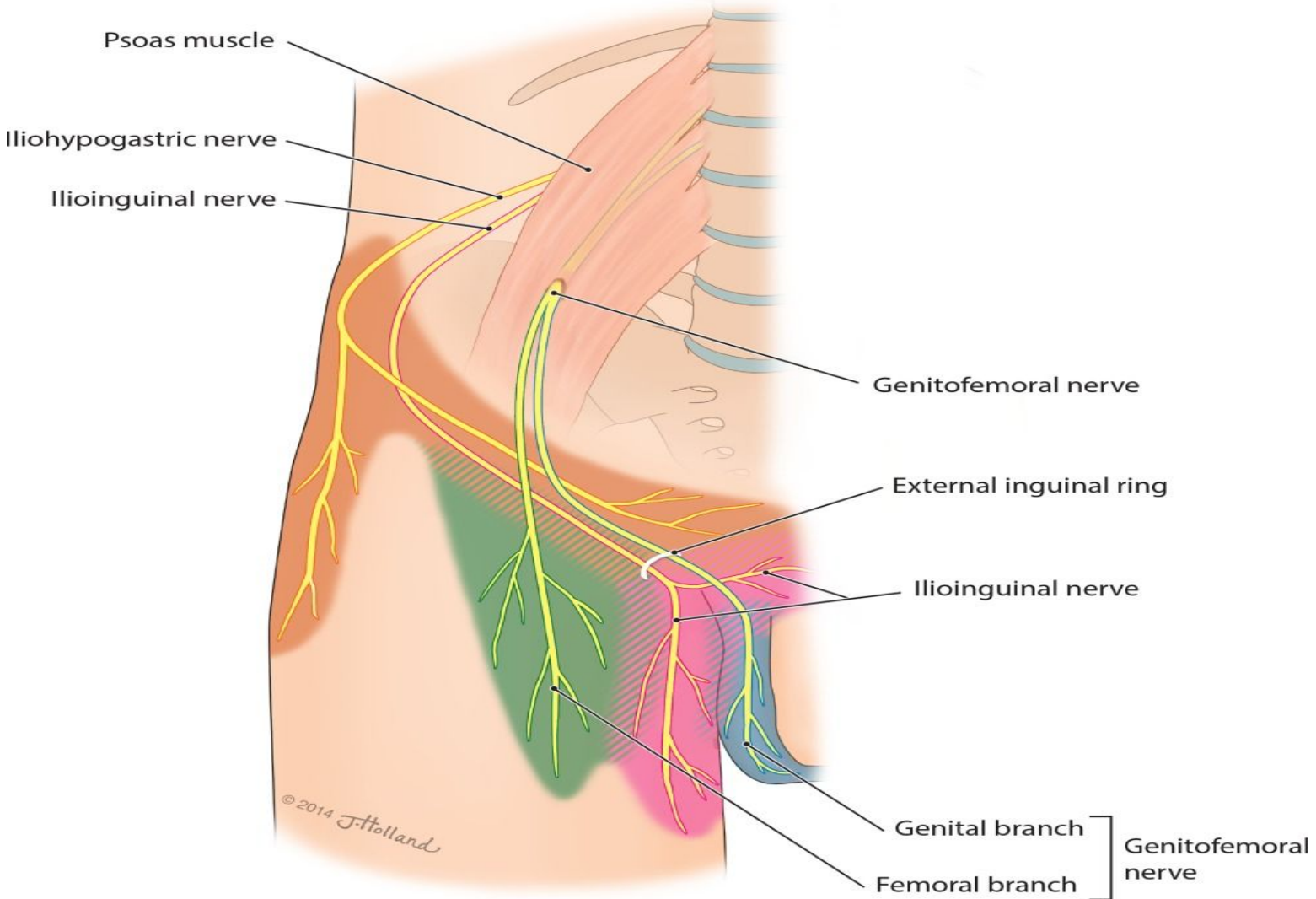
And importantly

Part of working with patients in persistent pain with Pelvic floor dysfunction is also truly managing their expectations appopriately

So the goal for this lecture is to INTRODUCE you all to not only PUDENDAL NEURALGIA, but also the lesser known Pelvic Neuralgias that can have similarities to PN.

1.Genitofemoral Neuralgia

Genitofemoral neuralgia is a cause of neuropathic pain that is often debilitating in nature. It is characterized by chronic neuropathic groin pain that is localized along the distribution of the genitofemoral nerve.


Psoas muscle
Iliohypogastric nerve
Ilioinguinal nerve
Genitofemoral nerve
External inguinal ring
Ilioinguinal nerve
Genital branch
Femoral branch
Genitofemoral nerve
© 2014 J.Holland

GFN

Is a BRANCH of the Lumbar Plexus from the anterior rami of the spinal nerves L1-2

ORIGINATES in the PSOAS MAJOR muscle

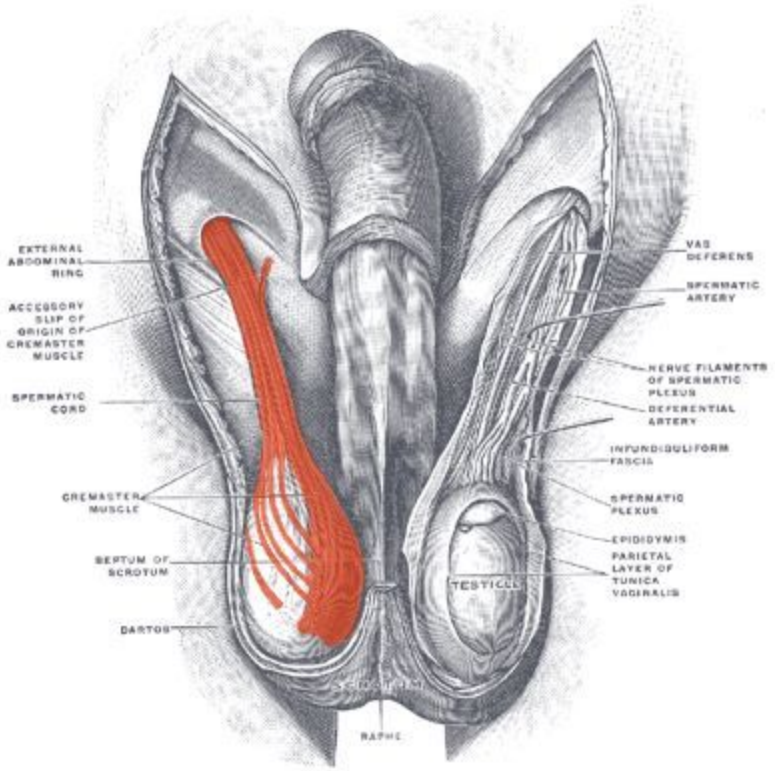
Bifurcates into two branches as it is descending towards the inguinal ligament

Primary sensory nerve that supplies the upper thigh region

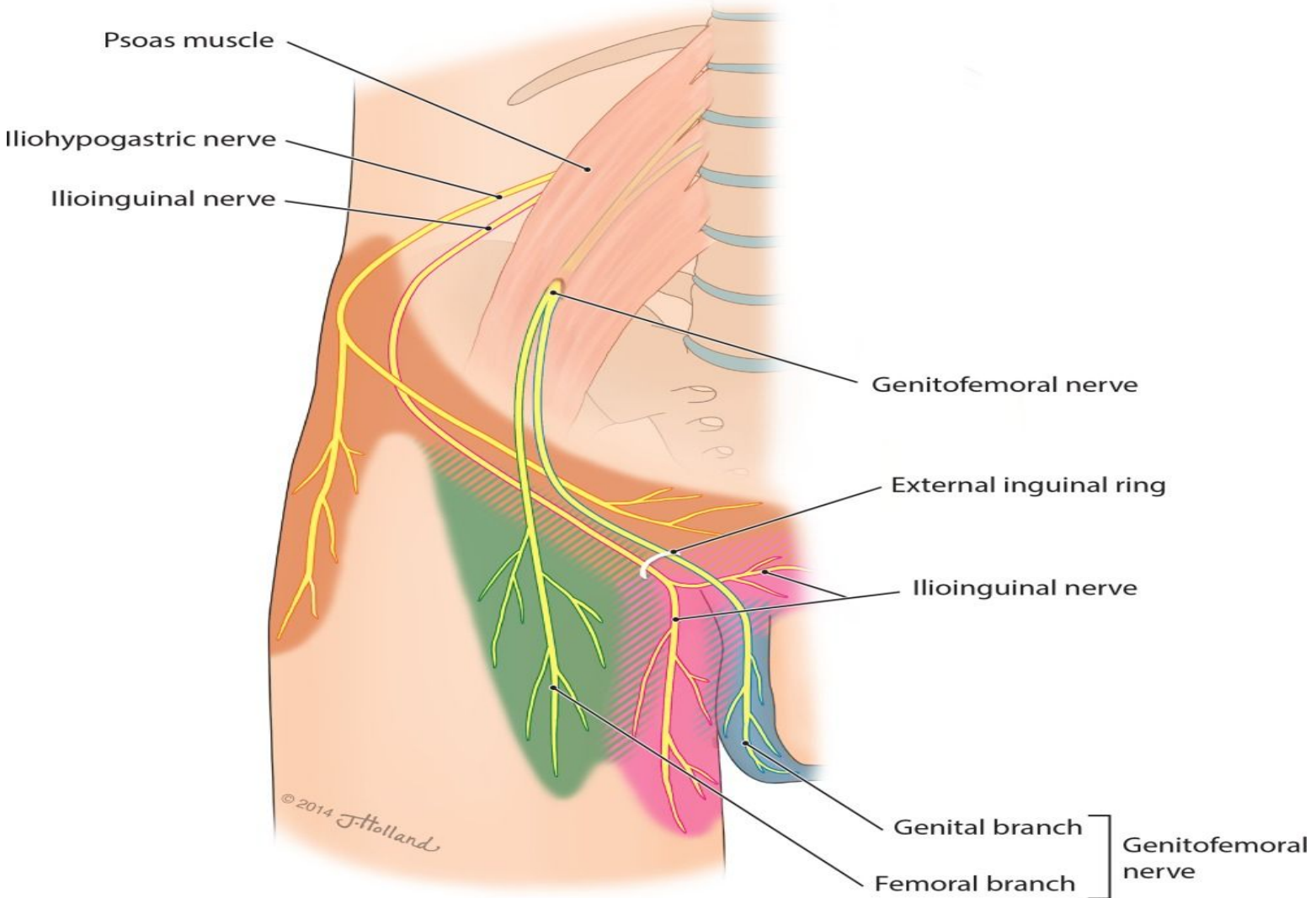
OH The CREMASTER

Who has heard of this muscle?

cremaster


EXTERNAL ABDOMINAL RING
ACCESSORY SLIP OF ORIGIN OF CREMASTER MUSCLE
SPERMATIC CORD
CREMASTER MUSCLE
SEPTUM OF SCROTUM
DARTOS
RAPHE
VAS DEFERENS
SPERMATIC ARTERY
NERVE FILAMENTS OF SPERMATIC PLEXUS
DEFERENTIAL ARTERY
INFUNDIBULIFORM FASCIA
SPERMATIC PLEXUS
EPIDIDYMIS
PARIETAL LAYER OF TUNICA VAGINALIS
TESTICLE

So when your gentlemen patients have testicular/scrotal pain consider this lesser known muscle THE CREMASTER



GFN

Primary symptoms include: groin pain, paresthesias, and burning sensation spreading from the lower abdomen to the medial aspect of the thigh. It may present with scrotal pain in male, while females experience symptoms radiating to the labia majora and mons pubis.

Alper Cesmebasi [1], Abhishek Yadav, Jerzy Gielecki, R Shane Tubbs, Marios Loukas

Also due to the pathway of the GFNerve, you may also see pain in the lower back, as well (PSOAS, QL involvement)

LIKE MOST PFN’s

The issue here, and with the other pelvic neuralgias is that the nerve has been damaged in some sort of manner, such as compression, entrapment or its been cut.

It is something that one must suspect if there has been surgical interventions such as:

inguinal hernal repair or cesarean surgeries. Laparoscopy also needs to be considered in the region (endo, oophorectomies, salpingio-oophorectomies)

Damage to the genitofemoral nerve when pelvic lymph nodes are dissected (as with ovarian, uterine, bladder, or prostate cancer surgery) or when a large pelvic mass is removed during pelvic surgery

Also consider PSOAS MAJOR strains

Diabetes

Weight Gain

PREGNANCY

LOCAL ANESTHETIC

As a diagnostic tool are used here to confirm the diagnosis

CURRENT WESTERN TX GFN

NERVE BLOCKS/ablations

STEROID INJECTIONS

SSNRI’S (SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS =CYMBALTA)

GABAPENTIN

Topical Lidocaine

TENS

NSAIDS

Soft Tissue approaches

L1-L3 HTJJ (EA)

Motorpoints of RecAbs, Obliques (internal and external)

SCAR TISSUE threading (pecking, EA, castor oil packs)

Active Trigger Points

Inguinal ligament?

GUA SHA/ MOXA

PSOAS MAJOR RELEASE (posterior approach, anterior ab approach,)

QL Releases

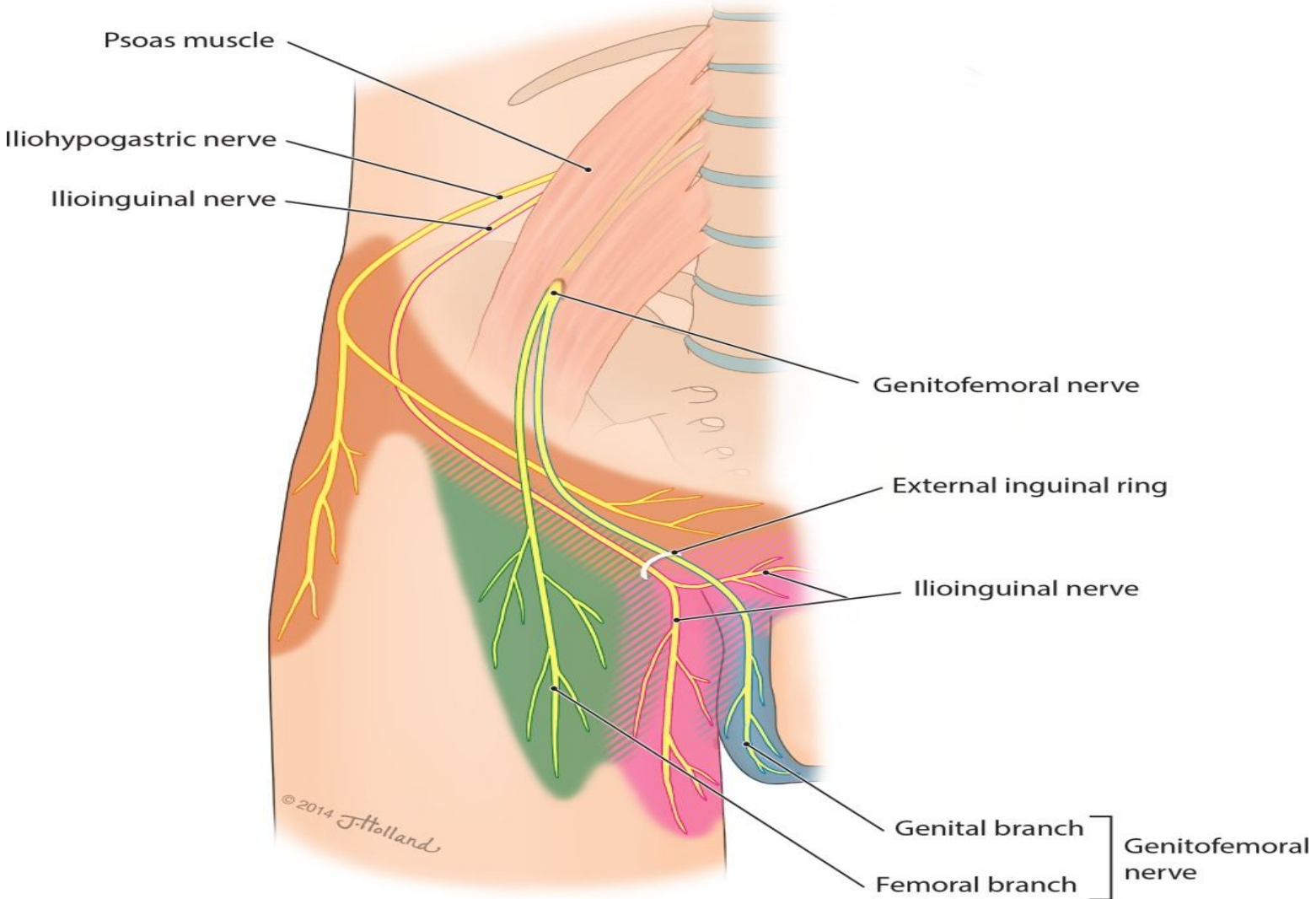
AND referring trigger points into thigh (quads, aDductors, illiacus, etc)

IlioInguinal Neuralgia

Etiology similar to GFN

SYMPTOMS VERY SIMILAR to GFN:

- Pain in the groin, supraPUBIC pain
- Lower Abdomenal pain
- Labia Major/Mons
- BASE OF PENIS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INNERVATES TA and IO

This is a common “sports type” entrapment due to use of TA and IO and tightening of the INGUINAL LIGAMENT: twisting motions, kicking across the midline

Treatment both western and TCM/acupuncture is similar to GFN

L1-L3 HTJJ (EA)

Motorpoints of RecAbs, Obliques (internal and external)

SCAR TISSUE threading (pecking, EA, castor oil packs)

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NERVE BLOCKS/ablations

STEROID INJECTIONS

SSNRI’S (SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS =CYMBALTA)

GABAPENTIN

Topical Lidocaine

TENS

etc

MERALGIA PARESTHETICA

Or also known as LATERAL FEMORAL CUTANEOUS nerve entrapment)

Here we see:

- Pain in the lateral THIGH
- Burning
- Tingling
- Partial Loss of Sensation
- Aching and referral to the groin area

This pathway ALSO descends UNDER the INGUINAL ligament

L2-L3

Has posterior and Anterior divisions at the spinal nerve roots

CAN ALSO be caused by tight clothing and belts (think utility belts)

Surgery or trauma to the hip and back

Obesity

Pregnancy

Walking, running, biking standing = PROLONGED

Tx both Western and TCM/ACU similar

Posterior Femoral Cutaneous Neuralgia

S1-3 deep in pelvic cavity

This is a SENSORY nerve from the SACRAL PLEXUS exits through the greater SCIATIC foramen

So we see it supplying sensation to the POSTERIOR: thigh, buttock, scrotum and labia and the PERINEUM. Coccyx may be involved and hamstrings

PAIN WITH SITTING and all the above regions

ASLO could be mistaken for PN or even some patients will say “sciatica”

The nerve pathway is then further divided up to gluteal branch (see inferior CLUNEAL nerves)

The perineal branch skin of the superomedial thigh and GENITALS

Cutaneous branches reaching through Biceps Femoris down to popliteal fossa

Symptoms here again are similar in nature:

Pain with sitting, alleviated by standing

Numbness and tingling in the area or referred

Parasthesia etc

We approach this again, with the above tools:

EA

Motor points

Segmental Acupuncture

Fascial manipulation etc

And again all similar treatments

NERVE BLOCKS/ablations

STEROID INJECTIONS

SSNRI’S (SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS =CYMBALTA)

GABAPENTIN

Topical Lidocaine

TENS

Etc

ACU/PT osteo

OBTURATOR NEURALGIA

L2-L4

Motor AND sensory innervation to medial thigh

ADduction

Articular branches to HIP and KNEE

OI/OE is often times injured in sports activitites

- Cycling
- Equestrian Sport
- Snowboarding/skiing
- Ice skating
- Also surgery, compression

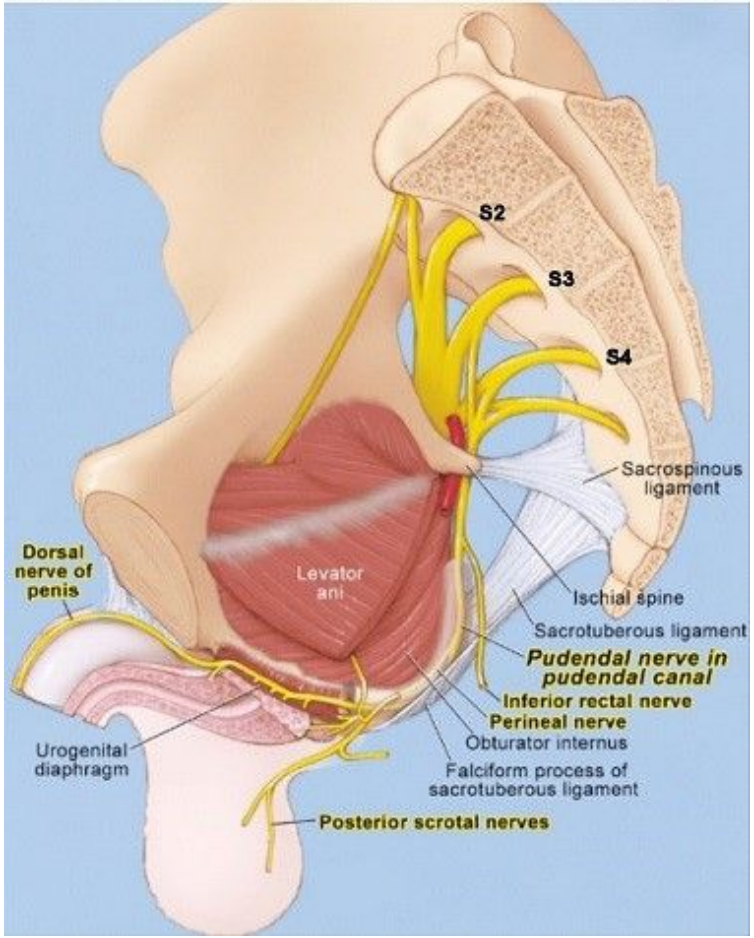
Now OI/OE I see A LOT in clinic

This is a set of muscles that gets soft tissue and needle work everyday in my clinic by just about everyone who comes in.

It is easily and comfortably worked through soft tissue work or acupuncture, and I will often do EA here.

PUDENDAL NEURALGIA

Pudendal nerve in pudendal (Alcock's) canal. Inferior rectal nerve arises from pudendal nerve before entering canal. Note location of falciform process of sacrotuberous ligament, which is possible site for pudendal nerve entrapment.



This could be its very own CEU, we will be touching on it here

Highest risk factor: CYCLING PROLONGED SITTING etc

S2-4

Has three branches: RECTAL, PERINEAL, GENITAL (although NOT testicle=L1)

Pain can be anywhere along the Pudendal Nerve itself but we see A LOT of cases where it is situated in the PERINEUM. Can go into gluteal cleft, ischium, pubis, internal/external anal sphincters

Pain is often described as burning, pinching, stabbing, crushing or shooting in nature. Also classic NUMBNESS and TINGLING

In 80% of case, pain is alleviated upon standing.

If the rectal branch is involved patients will feel like their descending colon is full and has a foreign body in it.

Perineal Branch, “like there is a golfball there” (Levator Ani syndrome)

Genital branch: Pain with erection and ejaculation in males, clitoral pain, vestibular pain and general pain AFTER intercourse in females.

Some other issues with ejaculation and erection are that there is a SIGNIFICANT loss of sensation in the penis, or shaft only, and that pain occures POST ejaculation.

Patients often times can’t wear under garments or jeans, stockings or other tight fitting articles of clothing.

There is a definite predisposition to childbearing and repeated ABDOMINAL straining (think constipation causing “bulging in pelvic floor” as well).

SACROSPINOUS LIGAMENT and ISCHIAL SPINE geographically can predispose one to PN as well as STL

IMPORTANT NOTE:

Pelvic pain syndromes likePN, pelvic neuralgias, BPS, Vestibulitis, IBS, Myofascial pain, urethral pain, testicular pain, Vulvodynia, share very similar events:

- infection
- Inflammatory in nature
- Characteristics of allodynia
- ARE ASSOCIATED with one another (diagnosed/not diagnosed comorbidity)

This chronic (PERSISTENT) PELVIC PAIN (whatever that may be), is considered due to a series of sequential reactions

Stimulation of AFFERENT NOCICEPTORS

SECRETION OF INFLAMMATORY SUBSTANCES= NEUROGENIC INFLAMM.

WHICH CAN LEAD TO:

Dysregulation of autonomic nervous system

Possible predisposition of autoimmune issues (chronic stress somatic and sympathetic hypertonia)

This makes treating the singular diagnosis IMPOSSIBLE.

This is for PN etc, and we MUST take into account the multifaceted approach to management for these patients.

Pudendal Neuralgia is one of THE MOST difficult diagnoses to treat in clinic.

It can take months to even years to alleviate symptoms.

One must consider a multifaceted approach to patient care:

What does this look like?

Psychosocial

ESSENTIAL*

Recognition and validation of symptoms

- Developing a treatment plan that recognizes and validates
- Pathophysiological hypothesis
  - Possibilities AND limitations

Treatment objectives

- SOCIAL LIFE
- SEXUAL LIFE
- BLADDER/BOWEL

NEXT ESSENTIAL

ABSOLUTELY NO ONE MIRACLE CURE

- One thing may work for one patient and not for another
- Compliance: are your patients following the map?

RECOGNITION of TRIGGERS (aggravating factors)

Sexual Abuse

Personal relationships

Stress

Sitting

CYCLING (believe it or not, I’ve had patients who refuse to accept they can no longer cycle)

Bringing it all together

1. Real team effort
2. Modesty
3. Competency
4. Perseverance

1. Physical medicine (ACU/CHIRO/PT/DO etc)
2. Drug therapies (antidepressants/antiepileptics like gabapentin)
3. Blocks (PN, CT, Ultrasound, Alcocks Canal, Muscle(even botox here) GANGLION IMPAR, S3
4. PAIN Psychologists
5. EMDR
6. HYPNOSIS

At HOME CARE

STRETCHING

HOMECARE/PT/WANDS/dilators etc

RESTORATIVE YOGA

STRETCHING

THERAPEUTIC BATHING

TENS

FOAM ROLLING

THERABANDS

MEDITATION/QI GONG

DIAPHRAGMACTIC BREATHING

PELVIC FLOOR DROPS

HYPNOSIS exercises

TOPICAL ANALGESICS

CBD/THC

PSILOCYBIN etc

There is no one protocol for PN

The key here is patience

Compassion

And transparency

BONUS