Lumbosacral Cyst

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CASE 1

• 79 y/o man with history of Myasthenia Gravis
• Bilateral hip replacements in the past
• Several years history of back and leg pain
• Recently relying on a wheelchair because standing causes pain in his legs
• On standing or walking, pain in his “hips” and both lower extremities > worse on the right
CASE 1

- Able to walk with a cane
- Shuffling, flat footed gait
- Diminished pin prick sensation in right 5\textsuperscript{th} toe
- Good EHL strength bilaterally
- Some difficulty standing from seated position
- Absent reflexes in the lower extremities
MRI Lumbar Spine

Diagnosis?
Spinal Synovial Cyst (SSC)

- Up to 10% of symptomatic patients have SCC
- 75% of SSC occur at L4/5 & L5/S1
- Found on medial border of facet joints
- May impinge on exiting and/or traversing root
- 38% to 50% degenerative spondylolisthesis
Management of SSC

• Conservative management: Bed rest, NSAIDS, PT and bracing?

• Injections
  – Epidural?
  – Intra-articular?

• Surgery
  – Decompression?
  – Stabilization?

• Minimally invasive decompression
  • Late fusion 2%
  • Recurrence 1%
  • Instability 2%
CASE 2

• 56 y/o ♀ referred by an orthopedic surgeon
• Intermittent painful paresthesia right LE
• History of Addison’s disease
• 40 pound weight gain in 5 months due to steroid therapy
• No left leg symptoms
• No motor weakness
• No reflex abnormality
Sagittal MRI
MRI Axial

Diagnosis?
What additional history & exam?

• Genitourinary history:
  – Frequency, urgency, stress incontinence
  – On Detrol LA
  – No dyspareunia

• Sacral function exam
  – Numbness in posterior thigh
  – Saddle numbness
  – Urodynamics
Tarlov’s cyst
Sacral dermatomes
Sacral Myotomes

S2

- sphincter urethrae membranaceae
- gluteus maximus muscle
- piriformis
- obturator internus muscle
- superior gemellus
- semitendinosus
- gastrocnemius
- flexor hallucis longus
- abductor digiti minimi
- quadratus plantae

S3

- iliococcygeus
- puborectalis
- coccygeus
- sphincter urethrae membranaceae
- superior gemellus
Tarlov’s cyst

• Sacral perineural cyst described by Tarlov in 1938
• Classified as a type II meningeal cyst by Nabors
Nabor’s Classification

• Type I: Extradural meningeal cyst without spinal nerve root fibers
  – IA Extradural meningeal cyst (extradural arachnoid cyst)
  – IB Sacral meningocele

• Type II: extradural meningeal cyst with spinal nerve root fibers (Tarlov’s perineurial cyst, spinal nerve root diverticulum)

• Type III: spinal intradural meningeal cyst (intradural arachnoid cyst)
Treatment

• Conservative  (Leave it alone!)
  
• Analgesics & NSAIDS
• Fibrin Glue (with and without aspiration)
• Shunt (cysto subarachnoid, cysto peritoneal)
• Direct surgical management (ligation, imbrication, resection, fenestration)
Dissenting viewpoint

- 20% are symptomatic on discovery
- Disproportionately affect women
- Cause intimate, under-reported symptoms
- Surgical treatment has reasonable outcome with few complications

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• 28 y/o woman
• Low back pain which started with a new job
• LBP pain is worse lying down
• Swelling in her low back and tenderness
• Denies any lower extremity symptoms
• Occasional urinary urgency
• Urodynamics showed retention.
Back exam
Sagittal MRI
Contrasted MRI

Diagnosis?
Meningocele

- Failure of the neural tube to close during the first four weeks of pregnancy
- Spinal cord is intact
- Only the meninges protrude through the spinal defect
- Usually detected at or before birth
CASE 4

- 47 y/o woman
- PSH of transvaginal hysterectomy 1997
- Rectocele repair in 2007
- Subsequent laproscopic bladder suspension for stage 3 cystocele in 2010
- Subsequent “revision” due to repetitive infections
Present history

• Vague pelvic complaints
• Deep pelvic discomfort
• Vaginal pain (vaginismus)
• Saddle anesthesia
• Incontinence, (previous surgeries?)
Physical Exam

- No cutaneous abnormalities in the midline
- Tenderness to palpation of the coccyx.
- Normal distal strength
- Normal lower extremity sensation
- Normal lower extremity reflexes
- Odor of incontinence
Sagittal MRI Pelvis
Coronal MRI Pelvis
CT Myelogram

Left Parasagittal

Diagnosis?
Diagnosis

Anterior Sacral Meningocele
Anterior Sacral Meningocele

- Rare condition, typically congenital
- Symptoms caused by pressure on pelvic organs (constipation, dysmenorrhea, incontinence, dystocia)
- Back pain, pain and numbness in LE
- Headache (low/high pressure)
- Rectal mass is typically palpable
Currarino triad

• Scimitar (Sickle shaped) sacrum
• Presacral mass
• Anal atresia
Treatment

• Literature recommends surgery, experts say no.
• Anterior approach is disastrous
• Posterior laminectomy with ligation of the ostium if no neural elements are present.
• Dural plication if neural elements are present.
Meningeal diverticulum
Case 1
Dural ectasia