Piriformis syndrome

- Piriformis gets hypertonic
- Hypertonic piriformis presses on proximal sciatic nerve
- Neurological ischaemia, congestion, local inflammation and radicular complaints
- Sciatic nerve can pass through the muscle instead of deep in some people
- Sciatic nerve does not innervate butt or posterior thigh (innervates sensation of LL and foot)
- Pain in the butt and posterior thigh thought to be because of compression of inferior gluteal vein - ischemia to posterior femoral cutaneous nerve
- Chronic cases can lead to perineural adhesions in the sciatic nerve

Risk Factors

- Morton foot (longer 2nd digit) can be a risk
- 40-60 yo
- Affects women - Q angle
- Affects people who sit on their wallets in their back pocket (hip pocket wallet)

Presentation

- Trauma or develops slowly
- Strain, fall on buttocks or catching oneself from a near fall
- Repetitive microtrauma - long distance walking, stair climbing, chronic compression
- Paresthesia or numbness in the gluts and radiates along the sciatic nerve
- Trigger point referral into proximal thigh, SI and hip
- Aggravated by holding a position for longer than 15-20 minutes - prolonged sitting/standing, hip int rot (crossed legged)
- Discomfort when walking, running, stair climbing, riding in a car or arising from a seated position
- Can be a antalgic gait
- Hypertonic piriformis and obuturator internus, TFL, obturator externus, adductor and gluteal muscles
- SI joint dysfunction, restrictions in LL and spine
- Assess arch of foot and Leg length
- Assess for externally rotated hip at rest
- PROM hip internal rot
- +ve FAIR +ve SLR
- SMR can reveal neurological changes (not proximal thigh weakness)
- Assess for other entrapments (gemeli-obturator internus syndrome, ischiofemoral impingement syndrome, proximal hamstring syndrome

Imaging

- Not usually required
- Advanced imaging to rule out other radicular complaints
- Electrodiagnostic testing
- US

DDx

- Hip pathology
- F#
- Lx compression
- Discitis
- Trochanteric bursitis
- Sacroiliitis
- SI dysfunction
- Lx radiculopathy
- Spinal stenosis
- Viscerosomatic referred pain

Management

- Limit activities - hill and stair climbing, walking on uneven surfaces, intense downhill running/twisting, throwing objects backward
- Avoid sitting on one foot, take breaks from standing, sitting and car rides
- Limit sustained hip ext rot and abduction
- Stretching of piriformis
- Myofascial release of gluts, obturator, tensor fascia lata, hamstring, lx erectors, hip adductors
- SMT/EMT of lx, SI, LL
- Heat/ice
- Ultrasound
- Strengthening of abductors, adductors and gluts
- Heel lift for leg length inequality
- Muscle relaxants, steroids, trigger point injections, botox for faillure to respond to con care