



The Hip Spine Connection: How to differentiate hip conditions from those masquerading as spine pathology. A review article

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Disclosures

- American Hip Institute^a, AANA Learning Center Committee^a, Amplitude^c, Arthrex^{b,c,d}, ATI^b, Breg^b, DJO Global^d, Orthomerica^d, Pacira^{b,c}, Stryker^{b,c}
- a – boardmember; b – research support; c – consulting; d – royalty; e - stockholder

Background

- Practitioners who treat spine pathology will commonly encounter patients with pain around the hip
- Both can manifest with discomfort in the groin, buttock, lateral hip region, thigh, and even the knee.
- Cross-innervation between spine and hip can lead to diagnostic confusion: Lumbosacral plexus (L2-S5)
- Complex biomechanical interaction between the axial and appendicular skeleton

Purpose

- Elucidate the interaction between the hip and spine
- To assist the spine clinician in recognizing the hip as a potential confounding source of pain
- Direct the workup and management

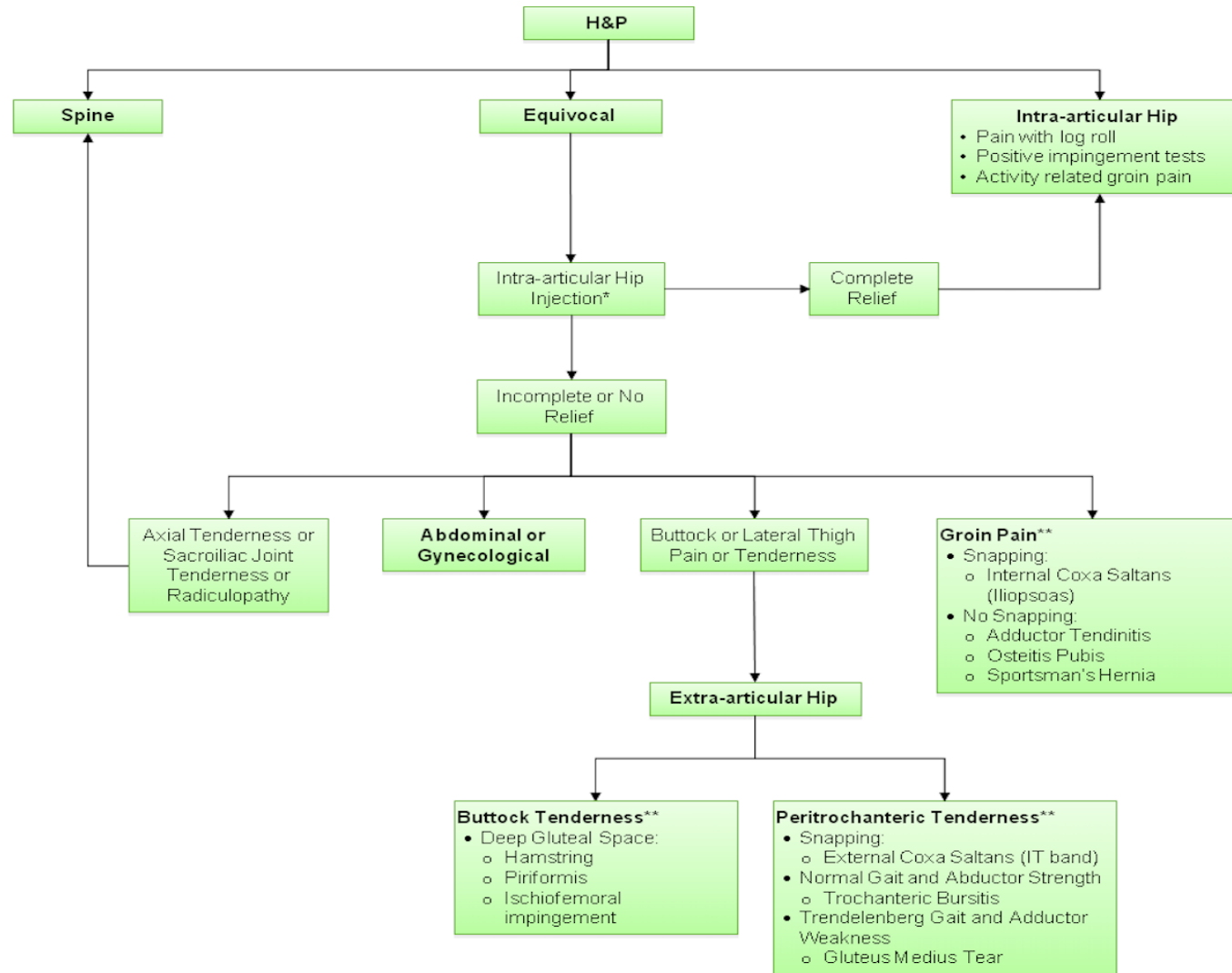
Concepts

- Hip Spine syndrome: Offiersky and McNab
 - Patients with hip flexion cx have increase LL
 - Compensatory increased pelvic rotation results in increased facet loading and arthrosis
- Spine Hip syndrome: Yoshimoto et. al.
 - Increase PI in younger individuals may result in hip osteoarthritis because of relative uncovering of the acetabulum

Concepts

- Spinal alignment and FAI: Gebhardt et. al.
 - Association between decreased PI and femoral cam lesions and acetabular pincer lesions
 - This supports that the spinopelvic axis may be a contributing factor to femoroacetabular impingement (FAI).
- Asymmetric hip rotation esp. internal rotation, may result increase incidence of LBP: Sadeghisani et al.
 - sports requiring significant trunk rotation such as golf and tennis

Diagnostic algorithm



Conclusions

- History
 - Groin pain
 - Lack of radicular symptoms,
 - Positive impingement test
 - Favorable response to intra-articular injection of local anesthetic
- MRA hip
- Extra-articular hip pathologies
 - gluteus medius tears,
 - internal or external snapping (coxa sultans)
 - deep gluteal space conditions

References

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Thank You

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