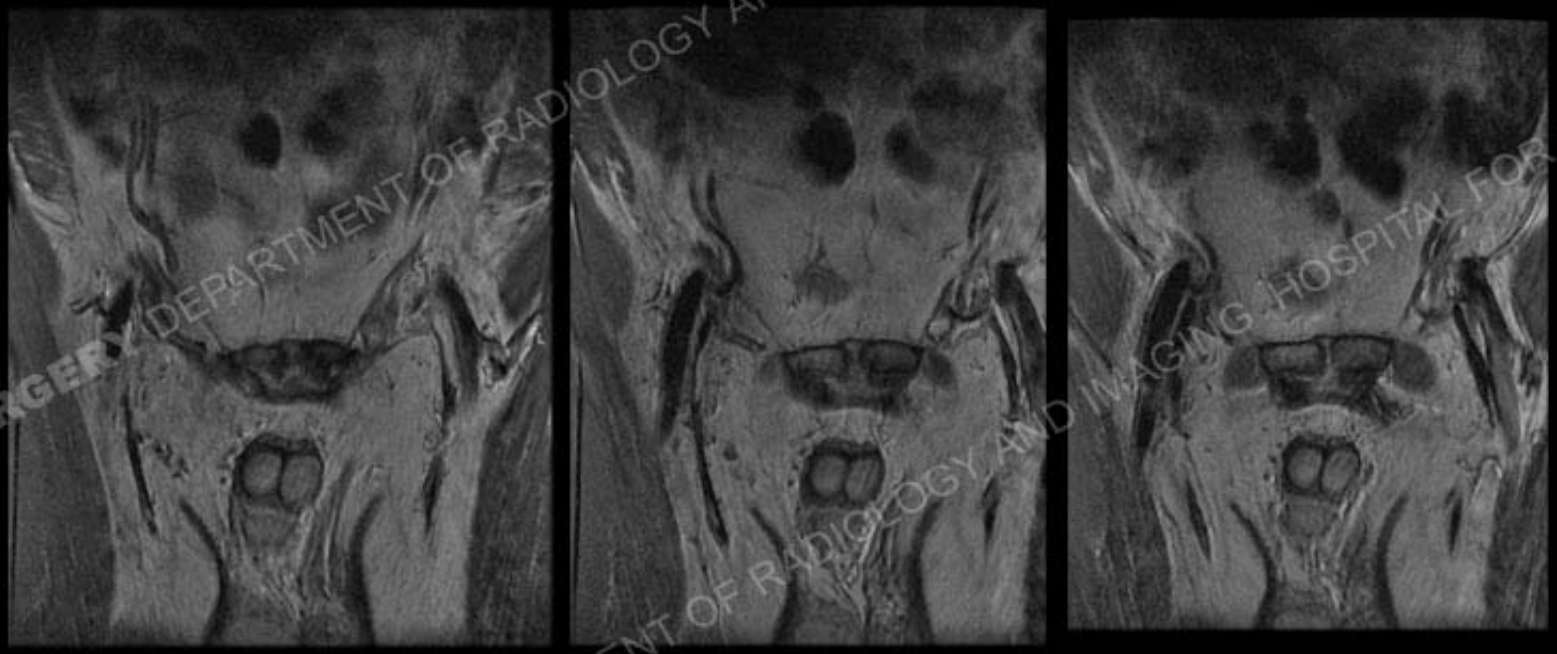
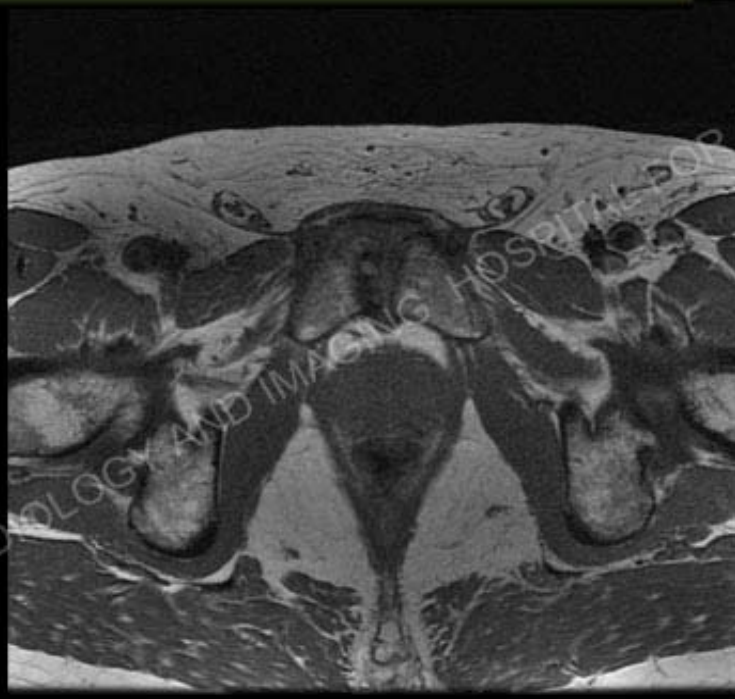

Coronal IR image of the pelvis
History: 45 year old man with pain about the pubis, right greater than left.

Coronal PD consectuive images from anterior to posterior

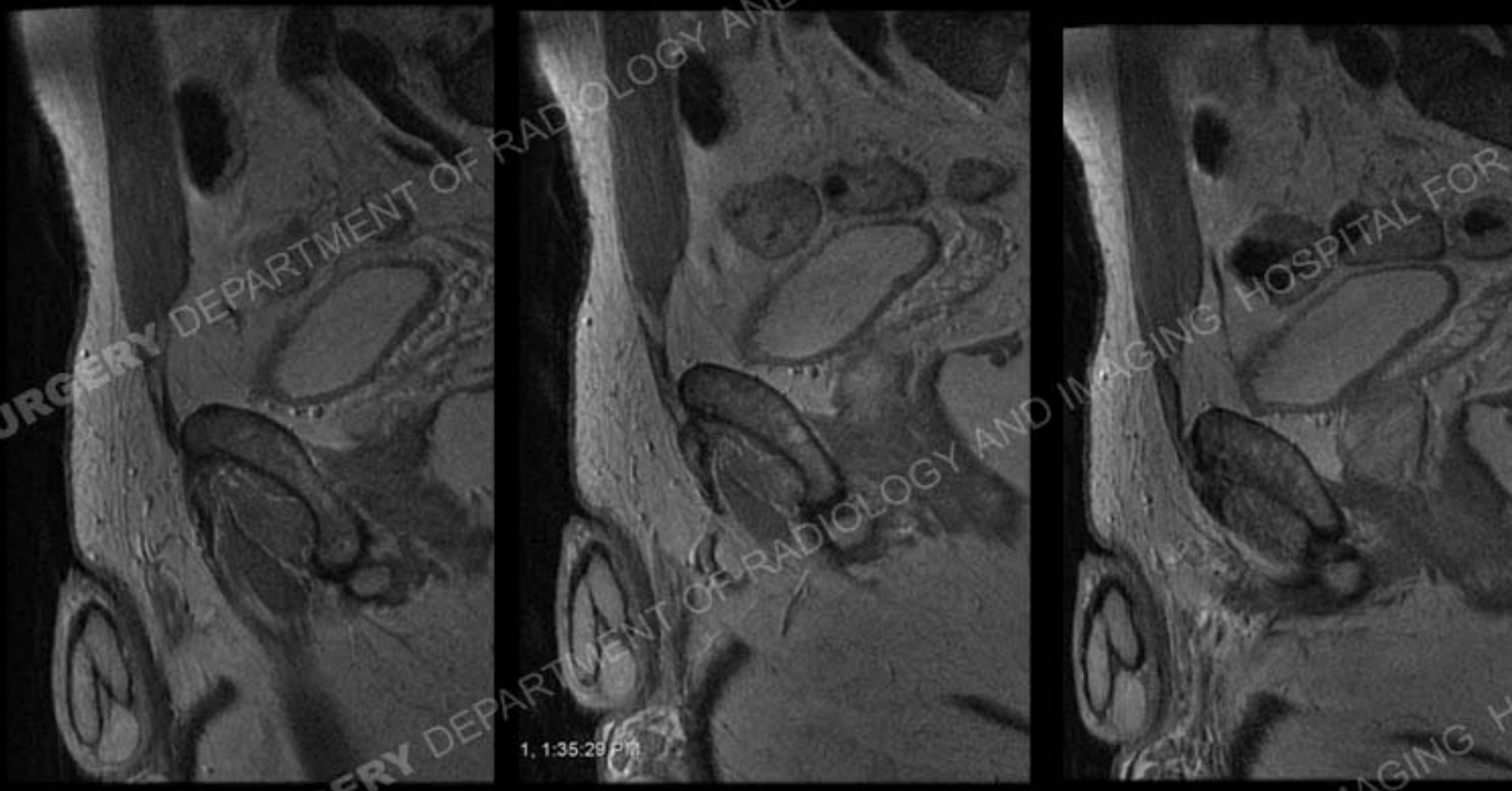


Coronal IR images from anterior to posterior

Axial PD images at the mid to inferior aspect of the pubic symphysis



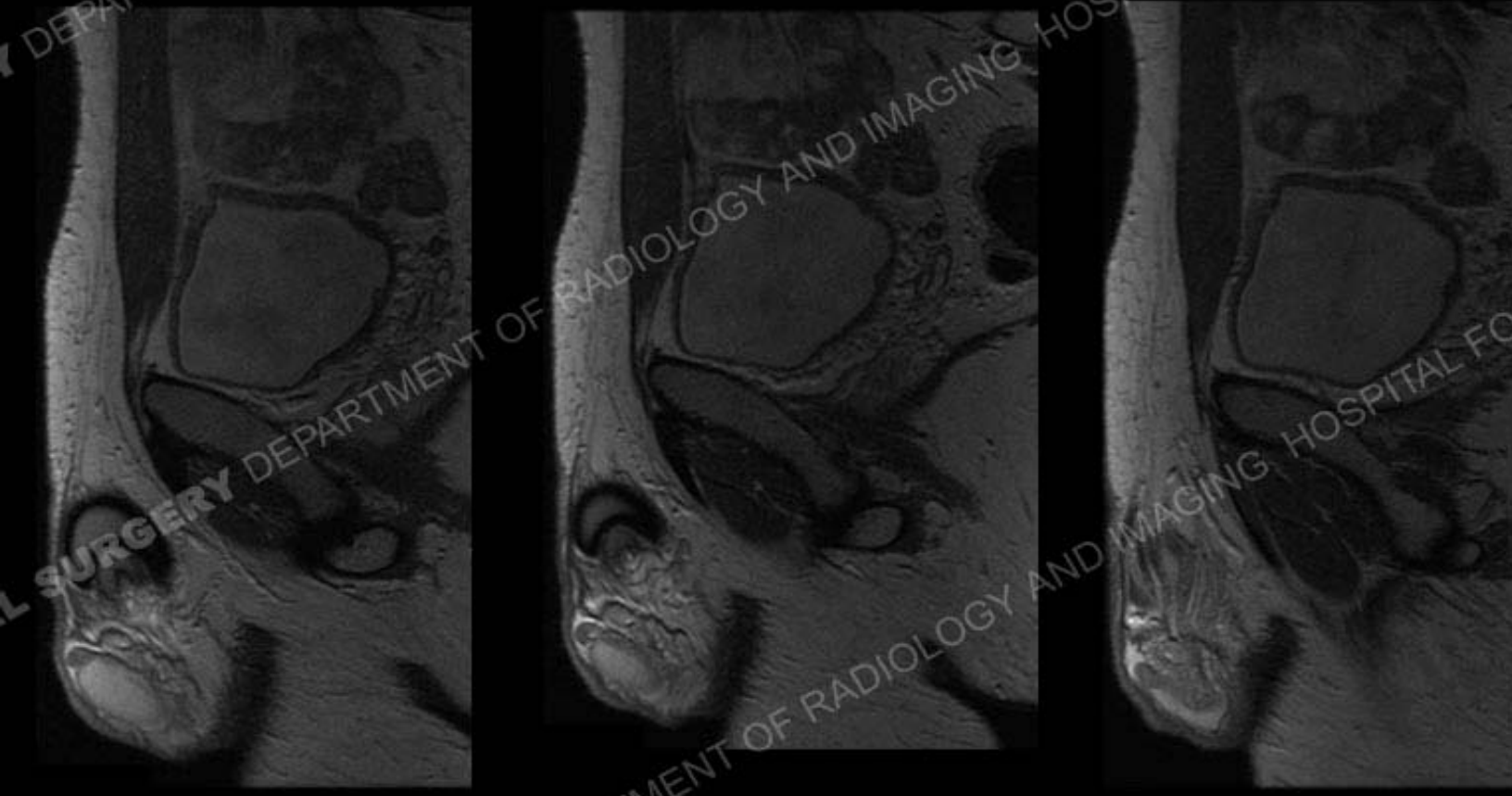
Sagittal PD images of the less symptomatic left side, extending from medial to lateral



Sagittal PD images of the more symptomatic, right side

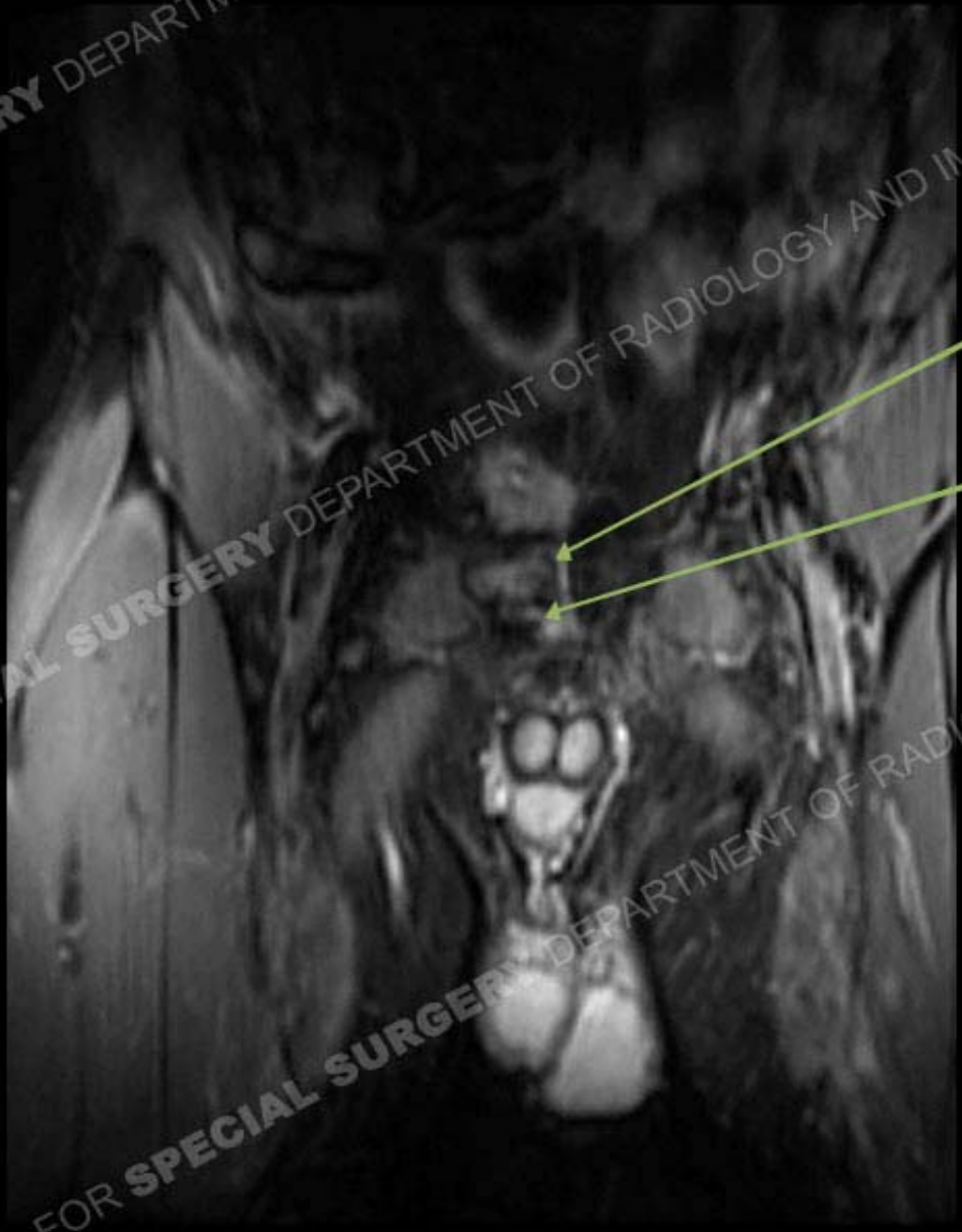
Coronal PD images of the anterior abdominal wall

Asymptomatic patient for comparison



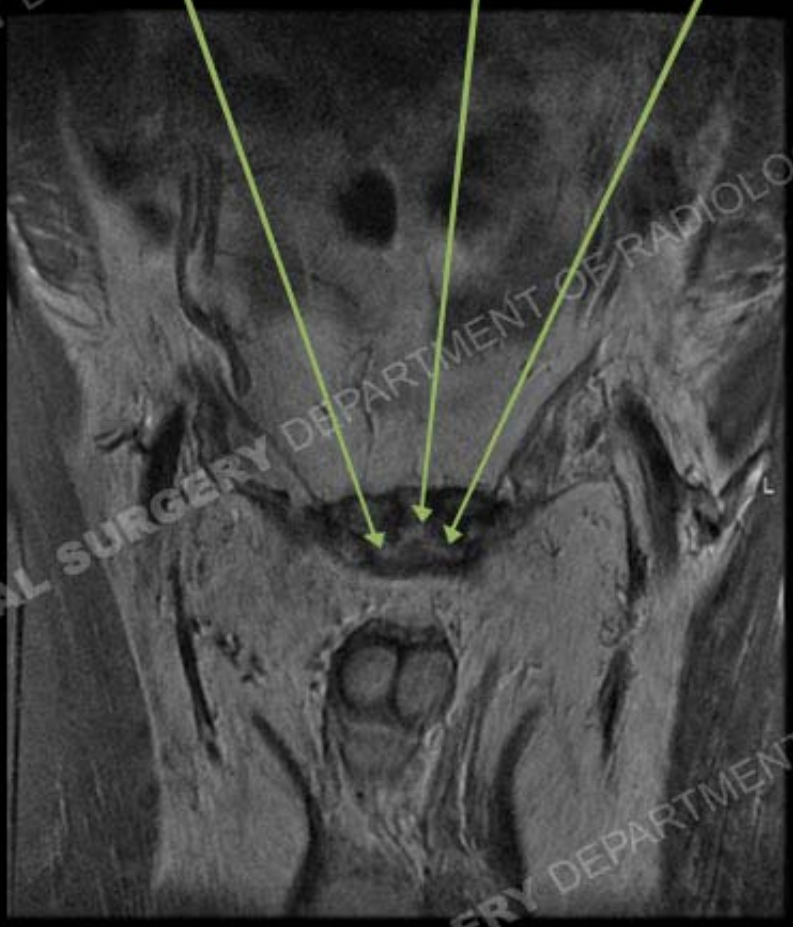
Findings

Fat suppressed images demonstrate edema centered at the pubic symphysis with additional increased signal extending along the inferior aspect of the pubis. On the right side in particular, a fluid cleft is seen propagating about the pubic symphysis. Axial images show subchondral cysts extending anteriorly to posteriorly of the pubic symphysis. Coronal images of the anterior abdominal wall demonstrate focal fatty infiltration of the rectus abdominis, right greater than left. Finally, sagittal images demonstrate a fluid cleft about the anterior aspect of the pubic symphysis at the right sided rectus/adductor longus aponeurosis.

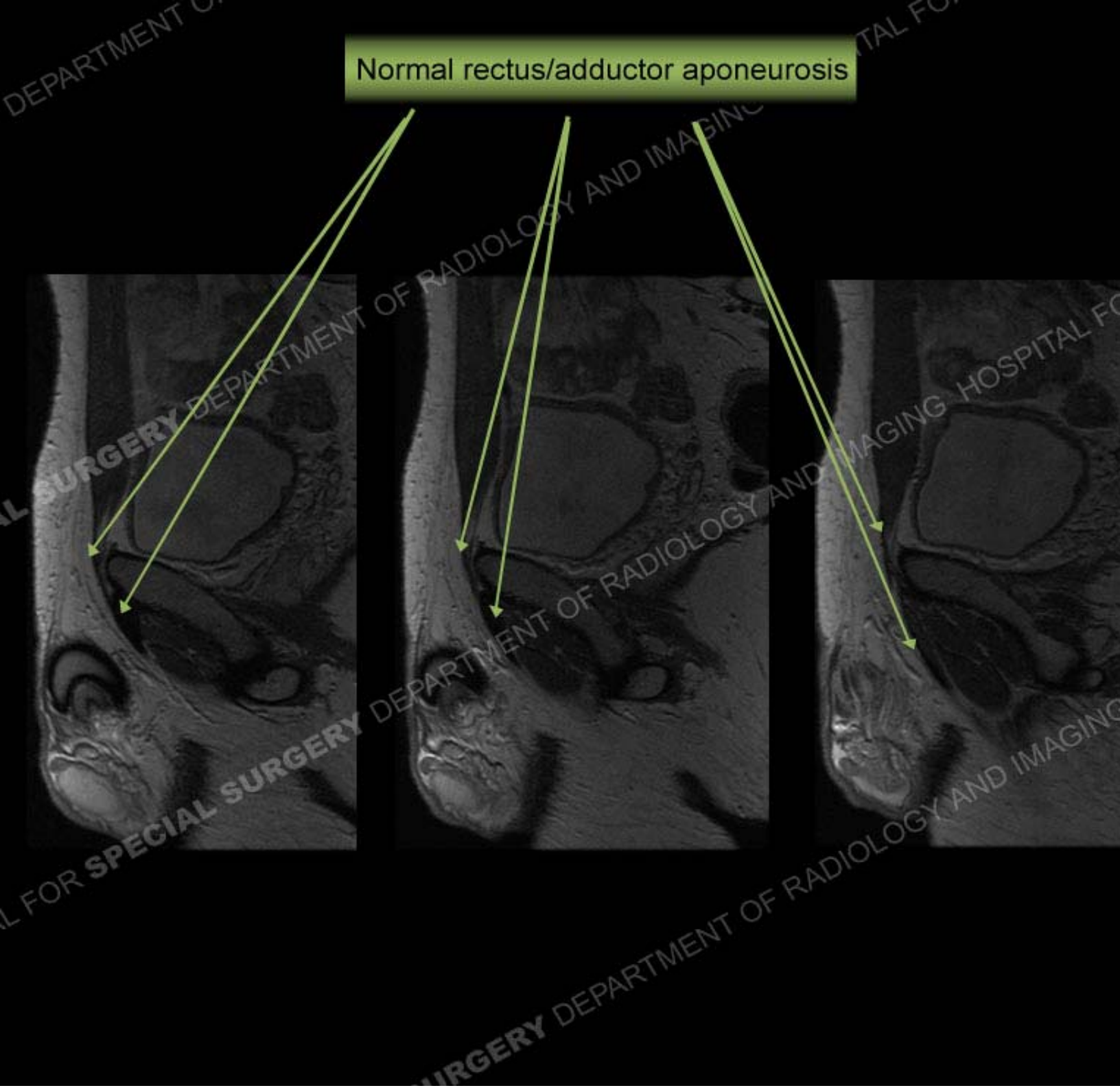


Edema at the pubic symphysis with particularly increased signal propagating about the anteroinferior aspect along the right side

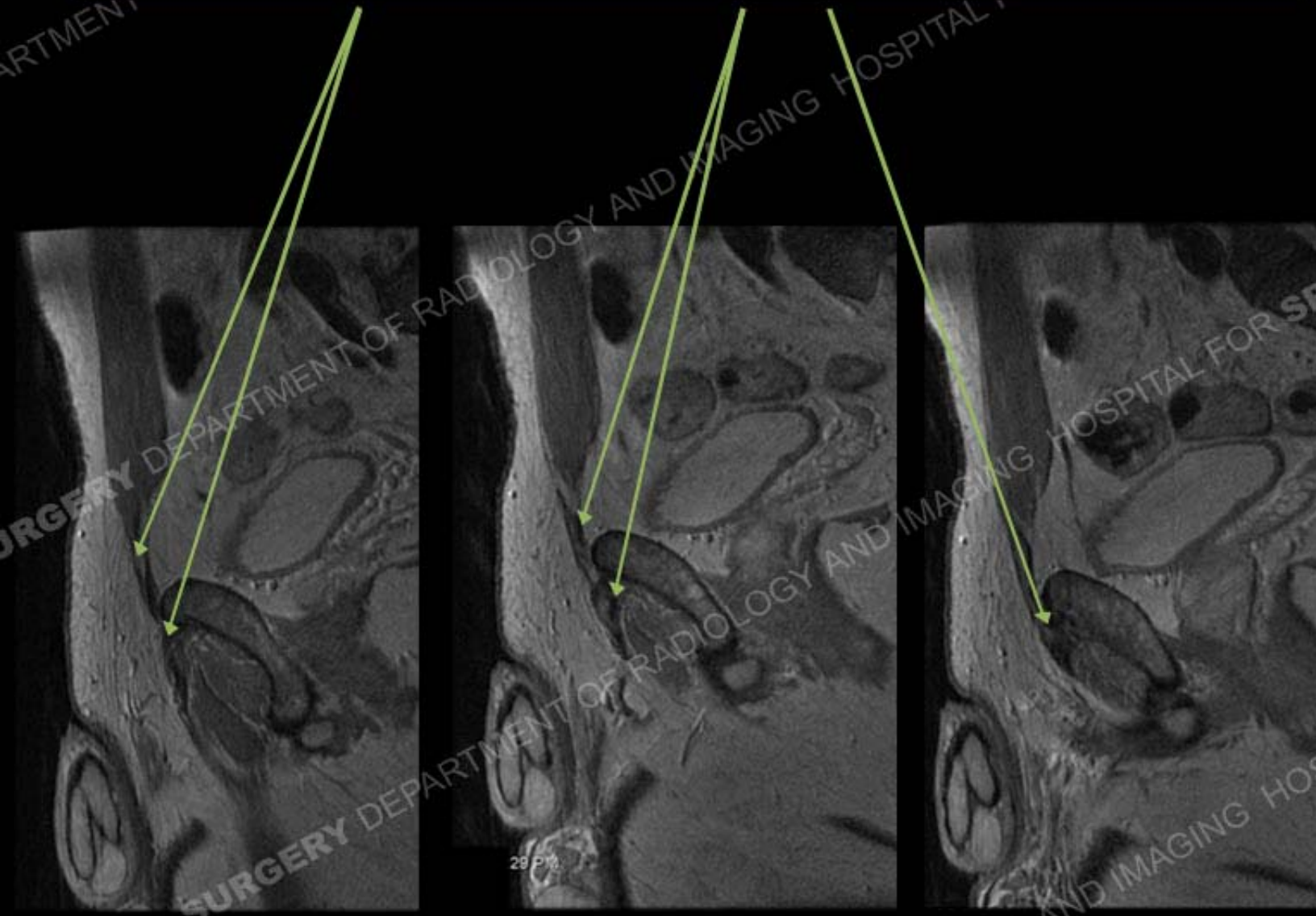
Degeneration with high signal at the pubic symphysis extending to the right and left



Small fluid cleft undermining the right side of the pubis


Normal rectus/adductor aponeurosis

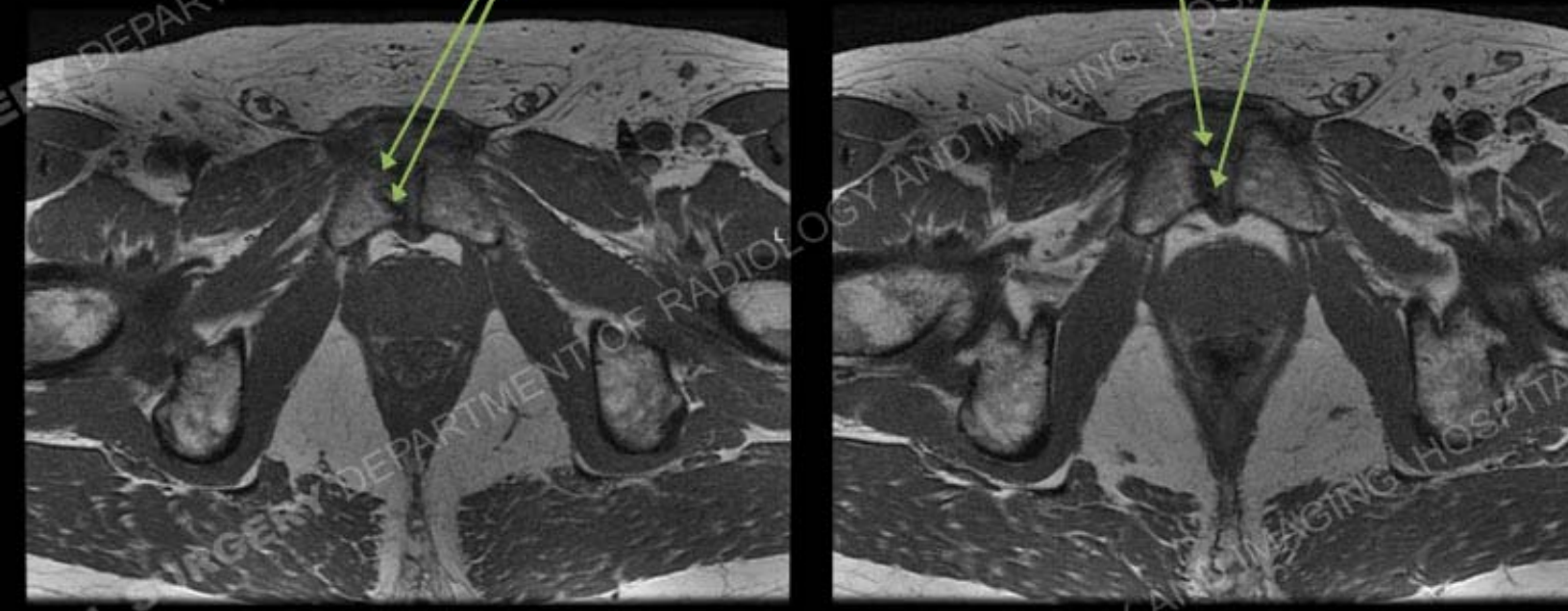
Degeneration with high signal in the left sided rectus/adductor aponeurosis



Degeneration of the rectus/adductor aponeurosis

Focal tear with fluid signal

Degenertive changes with cysts extending anteriroly to posterirly of the pubic symphysis



Diagnosis: Sportsman's Hernia

A confusing and poorly named entity thought originally to be related to an inguinal hernia given pain in the inguinal region. The entity has subsequently been shown to represent a disruption of the rectus adductor aponeurosis. This entity may be seen in the setting of other causes of athletic pubalgia such as osteitis pubis, manifest by edema and cysts extending anteriorly to posteriorly about the pubic symphysis, as well as adducor muscle injuries. A sign previously described on arthrography is employed on MRI which is the secondary cleft sign. This represents a disruption of the pubic symphysis capsule as it blends with the rectus adductor aponeurosis.

Discussion

Recently described are two typical patterns of sportsman's hernia. The one is more lateral at the rectus/adductor aponeurosis and is associated with asymmetric pubic edema, an ipsilateral secondary cleft, and injury of the rectus and adductor. The other pattern is centered more at the pubic symphysis with bilateral secondary clefts and typically with a breech of the rectus but not often extending into the adductor longus. This case represents more of the second type of process, centered at the pubic symphysis, but with a clear tear of the adductor. Therefore, there likely is a continuum or spectrum across these two typical patterns.

Resources

Experience with "**sports hernia**" spanning two decades.

Meyers WC, McKechnie A, Philippon MJ, Horner MA, ZogaAC, Devon ON. **Ann Surg**. 2008 Oct;248(4):656-65.

Anatomy, pathology, and MRI findings in the **sports hernia**.

Shortt CP, Zoga AC, Kavanagh EC, Meyers WC. **Semin Musculoskelet Radiol**. 2008 Mar;12(1):54-61. Review.

Athletic pubalgia and the "**sports hernia**": MR imaging findings. Zoga AC, Kavanagh EC, Omar IM, Morrison WB, Koulouris G, Lopez H, Chaabra A, Domesek J, Meyers WC. **Radiology**. 2008 Jun;247(3):797-807.

Athletic pubalgia and "**sports hernia**": optimal MR imaging technique and findings.Omar IM, Zoga AC, Kavanagh EC, Koulouris G, Bergin D, Gopez AG, Morrison WB, Meyers WC. **Radiographics**. 2008 Sep-Oct;28(5):1415-38. Review.