

BILATERAL OSTEONECROSIS OF THE FEMORAL HEADS IN A PROFESSIONAL DISC GOLF ATHLETE

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CASE DESCRIPTION

- 41-year-old male professional disc golf athlete with a history of alcohol abuse and subsequent liver cirrhosis presented to a sports clinic with bilateral groin pain.
- Symptoms started gradually over the course of several months without inciting trauma.
- He described the pain as sharp, 5 out of 10 in severity, and localized to his groin without radiation.
- Pain was aggravated by walking, especially up hills and with taking long steps, and going from seating to standing. Pain was alleviated with rest.
- He denied any weakness nor paresthesia.

WORK-UP

- He had 5 out of 5 strength in bilateral hip flexion, knee extension, dorsiflexion, plantarflexion, and hip abduction. Sensation was intact to light touch from L2-S2 with normal patellar and Achilles reflexes.
- He was tender to palpation over his femoroacetabular joint line and greater trochanters bilaterally.
- He demonstrated bilateral antalgic gait with short stance phase and long stride length with circumduction.
- Leg roll and hip scour were positive bilaterally.
- Bilateral hip and pelvic x-rays revealed advanced osteonecrosis of femoral heads with collapse of the articular bone bilaterally.
- MRI of the hips showed findings compatible with osteonecrosis of the bilateral femoral heads with minimal flattening of the right femoral head but without subchondral collapse.

References

1. Mont MA, Hungerford DS. Non-traumatic avascular necrosis of the femoral head. J Bone Joint Surg Am. 1995 Mar;77(3):459-74.
2. Lavernia C.J., Sierra R.J., Grieco F.R. Osteonecrosis of the femoral head. J Am Acad Orthop Surg. 1999;7(4):250-261.

IMAGING



Figure 1: AP Radiograph revealing advanced osteonecrosis of each femoral head with collapse of the articular bone bilaterally

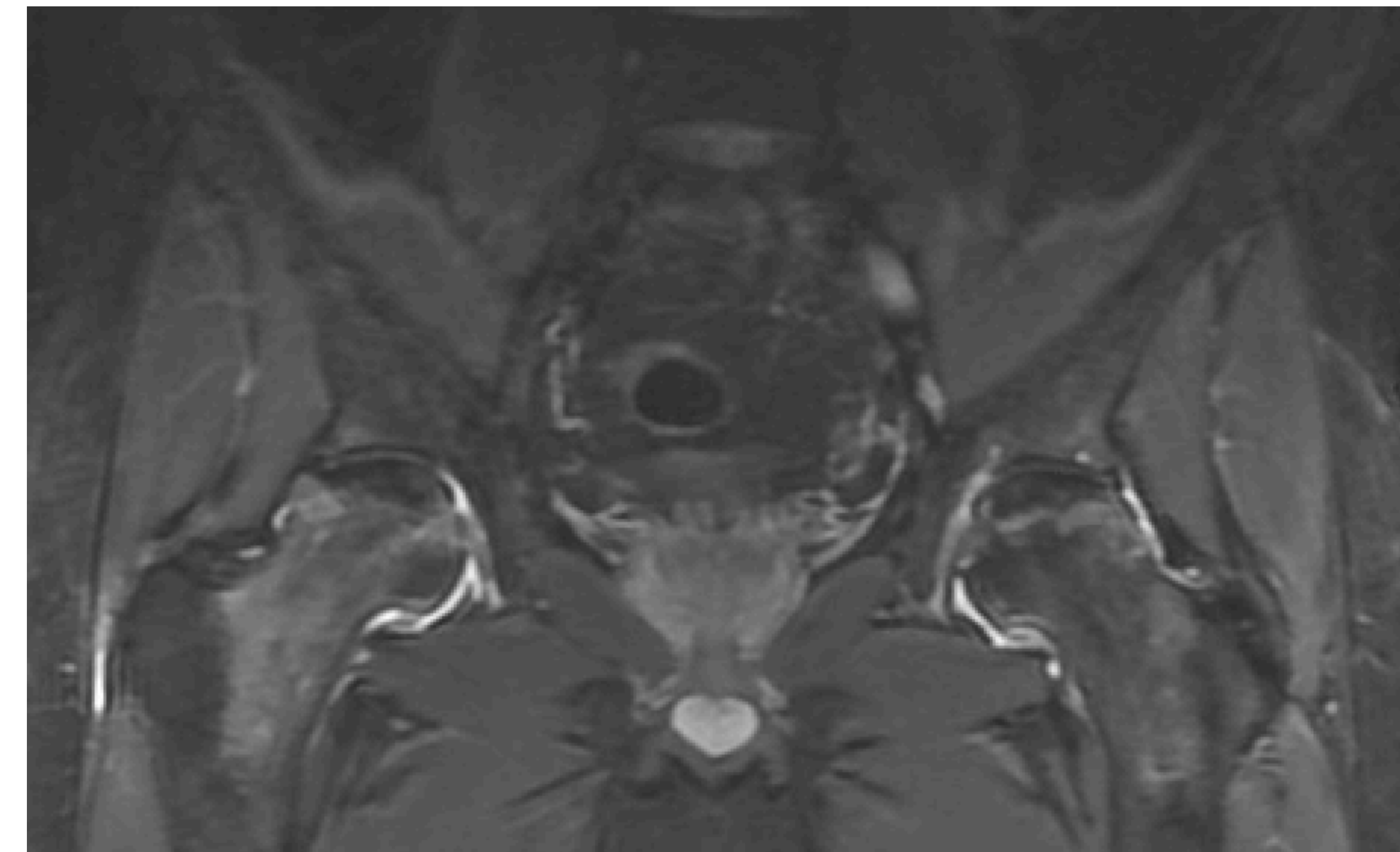


Figure 2: Coronal STIR MRI of the bilateral hips revealing osteonecrosis of the bilateral femoral heads with minimal flattening of the right femoral head but without subchondral collapse

OUTCOME

- He was instructed to offload his hips as much as possible and to avoid strenuous activity that involved hip flexion and internal rotation.
- He underwent bilateral intraarticular steroid injections and rigorous PT with minimal symptom relief.
- Additionally, he was referred to an orthopedic surgeon for further management and treatment given the advanced state of his disease.
- He is scheduled to undergo staged total hip arthroplasty in the future.

DISCUSSION

- Bilateral osteonecrosis is not uncommon, and there is a known correlation between alcohol use and osteonecrosis.
- Use of glucocorticoids and excess alcohol use are associated with more than 80% of atraumatic cases. Other atraumatic causes include cigarette use, SLE, sickle cell disease.
- Unfortunately, most patients present late in the course of the disease. Therefore, a high index of suspicion is necessary in the clinical setting to prevent further problems.

CONCLUSION

- This case report aims to spread awareness of the presentation, diagnosis, and treatment of nontraumatic avascular osteonecrosis of the femoral heads.
- Patients with positive log roll on exam, especially in the setting of osteonecrosis risk factors, need immediate work up.
- Patients with advanced stage avascular necrosis need referral to orthopedic surgery for possible surgical intervention.

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