

# 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.

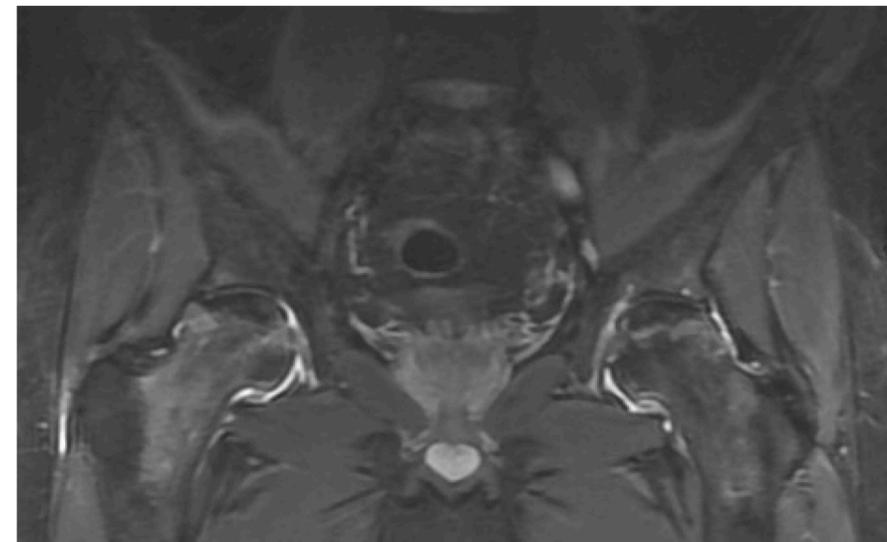
## References

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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