

## Bilateral Hip Avascular Osteonecrosis: A Debilitating Complication of Human Immunodeficiency Virus (HIV) infection

<sup>1</sup>Yeo Kye Sheng; <sup>1</sup>Seo Soon Teck, <sup>1</sup>Mohamad Fauzlie Yusof

<sup>1</sup>Department of Orthopaedic Surgery, Hospital Melaka, Melaka

### INTRODUCTION:

Osteonecrosis in individual with HIV infection is well documented.<sup>1-3</sup> Bilateral Hip Avascular Necrosis (AVN) is a debilitating condition affecting a patient's quality of life.<sup>1</sup> We are reporting a HIV-infected female who has no known predisposing AVN risk factors and we had treated her with core decompression.

### REPORT:

A 50 years old lady complained of bilateral hip pain for 1 year with severe left hip pain. She had HIV via marital transmission for 5 years. She was on HAART treatment at the Infectious Disease Clinic and CD4 and viral load were insignificant. She had no trauma or steroid ingestion history. Blood parameters were normal. Plain radiograph finding was subtle and we proceeded with MRI. Both hips shown hypointense subchondral femoral head with more prominent on the left. Femoral head configuration was preserved. (Ficet-Arley classification Stage 2)

Our choice of treatment was core decompression procedure to preserve her hip based on her age, severity and radiological findings. In our clinic review, her pain improved significantly and she walked without aid.

HIV-Infected patients are at risk of AVN 100 times more than general population.<sup>1</sup> 4% of all asymptomatic HIV positives were developing femoral head osteonecrosis in an MRI study.<sup>2,3</sup> Management is based stage of bone involvement and includes close observation, hip-preserving procedures and total joint arthroplasty.<sup>2</sup>

Core decompression is one of the treatments for early-stage osteonecrosis of the femoral head. Cores of femoral head bone are extracted to reduce the intraosseous pressure, thus reducing bone demineralisation and cell death, which in

turn, stimulates new blood vessels and delay disease progression.<sup>2-4</sup>



Figure 1: Pelvic Radiograph AP View



Figure 2: MRI Pelvic Coronal View

### CONCLUSION:

AVN should be recognized in HIV-infected patients with severe hip pain. Early stage may be treated with core decompression.

### REFERENCES:

1. Morse CG, Mican JM, Jones EC, et al. The Incidence and Natural History of Osteonecrosis in HIV-Infected Adults. *Clinical Infectious Diseases*. 2007;44(5):739-748.
2. Allison GT, Bostrom MP, Glesby MJ. Osteonecrosis in HIV disease: epidemiology, etiologies, and clinical management. *AIDS*. 2003;17(1):1-9.
3. Habermann B, Eberhardt C, Kurth AA. Total joint replacement in HIV positive patients. *Journal of Infection*. 2008;57(1):41-46.
4. Hua K chi, Yang X gang, Feng J tao, et al. The efficacy and safety of core decompression for the treatment of femoral head necrosis: a systematic review and meta-analysis. *J Orthop Surg Res*. 2019;14(1):306.