

Bone Appétit ; A Case Report of Osteolytic Metallosis

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INTRODUCTION:

Metallosis is defined as the accumulation and deposition of metallic particles secondary to abnormal wear from prosthetic implants. Adverse local tissue reactions to metal ion debris can include periprosthetic solid and cystic masses secondary to the release of metal ions and particles from metal-on-metal hip implants.

REPORT:

75 year old lady with bilateral hip avascular necrosis (AVN) secondary to untreated developmental dysplasia of bilateral hip had left total hip replacement (THR) done in 2018 and right THR in 2019. She was found to have 4cm lower limb shortening over the right side during her follow-up in clinic 6 weeks post operation. She had right hip THR dislocation with dislodge acetabular cup 6 weeks post operation.



Figure 1: X-ray shows dislocated THR with displaced acetabular cup.

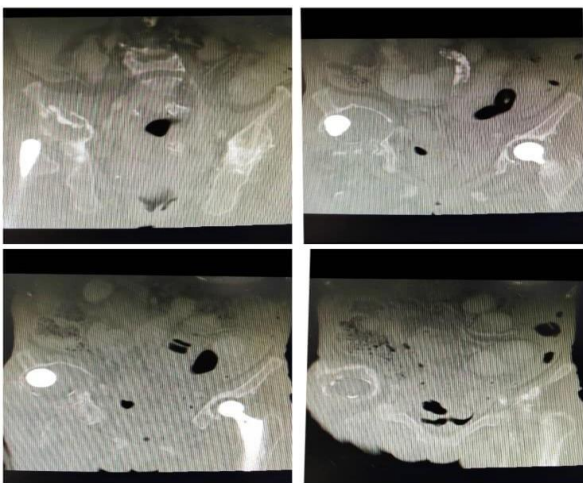


Figure 2: CT Pelvis shows Osteolytic lesion over right acetabular wall and ilium.

She was planned for revision of right THR, but unfortunately she defaulted her followup due to covid-19 pandemic.

CONCLUSION:

A variety of metal ions continually released from all hip prosthesis. However, abnormal wear or corrosion through numerous mechanisms can result in excessive metal ion generation [2]. There are no specific clinical signs or symptoms that indicate metallosis. Systemic manifestations are rare which includes anxiety, depression, mood disorders, skin rashes, neurological complications, cardiomyopathy, visual impairments, and thyroid disorders^[1]. Current treatment guidelines for failed implants include revision surgery. An alternative treatment could be chelation therapy with N-Acetyl-Cysteine (NAC) ^[1]. High dose of oral NAC shows reduce of cobalt / chromium blood concentration of the prechelation levels without adverse effect ^[3,4].

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