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Moustapha Etape, Ekono Nna Albert Patrick

Corresponding author: Moustapha Etape, Department of Orthopedic Surgery and Traumatology I, Mohammed V Military Teaching Hospital, Rabat, Morocco. moustaphaetape@gmail.com

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Chronic intra-pelvic migration of an infected hip arthroplasty in a young male sickle cell patient

Moustapha Etape[1,2,&], Ekono Nna Albert Patrick[1,2]

[1]Department of Orthopedic Surgery and Traumatology I, Mohammed V Military Teaching Hospital, Rabat, Morocco, [2]Faculty of Medicine and Pharmacy, Mohammed V University, 10100, Rabat, Morocco

[&]**Corresponding author**

Moustapha Etape, Department of Orthopedic Surgery and Traumatology I, Mohammed V Military Teaching Hospital, Rabat, Morocco

Image in medicine

Intra-pelvic migrations of infected total hip implants are extremely rare and challenging complications. We present the case of a 30-year-old man who was referred from a sub-Saharan African country with these complications. This is a known sickle cell patient with a history of hip arthrosis due to multiple episodes of vaso-occlusive crises. He was operated on for right total hip arthroplasty 18 months prior to his referral. He reported a progressive unset of the pain of his right hip associated with a progressive shortening of his right lower limb and a discharge of pus from the operation site, in an apyretic context that started eight months after the surgery. He could

walk with two crutches. Physical examination revealed a fistula with purulent discharge on the operation site, and a shortened right lower limb (3.5cm difference) with normal distal neurovascular examination. Waist X-ray and computed tomography showed intra-pelvic dislocation of the hip implant with deviation of right iliac arteries. A computed tomography angiogram revealed permeable right iliac arteries. C-reactive protein (CRP) was at 137mg/L with normal white blood cell count. Before implant removal, debridement, collecting samples for cultures, thorough lavage, and spacer placement, a two-week distal femoral gradual pin traction was done. *Staphylococcus aureus* sensitive to Imipenem and Amikacin was isolated and the patient received bi-anti biotherapy for infection control as per the protocol, after which a new cemented prosthesis was reimplanted. At the last follow-up (two years), the patient had equal lower limb lengths, walked with one crutch, and had no sign of infection at the operation site.

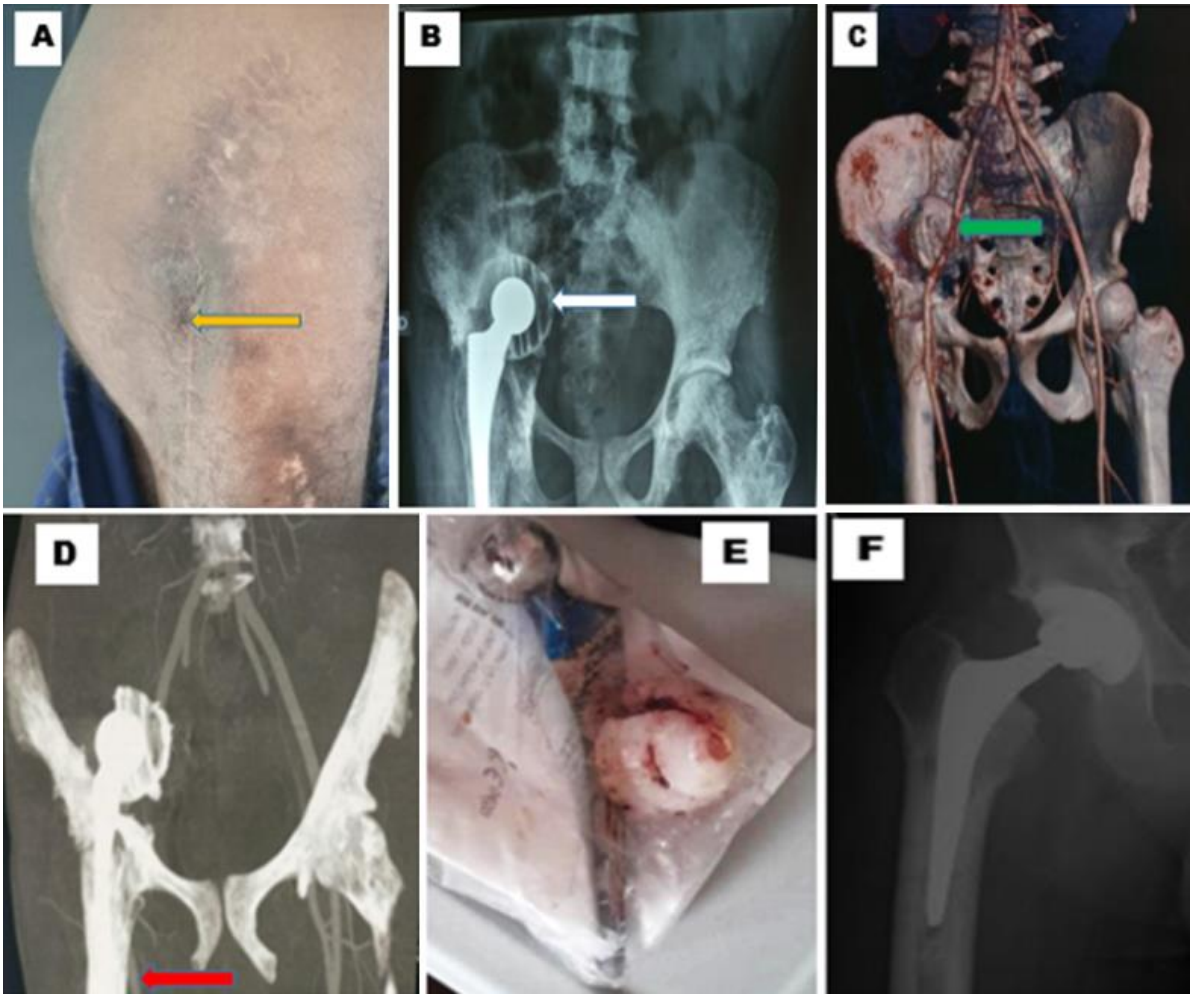

Figure 1: A) patient´s right hip showing the previous operative scar with a fistula (yellow arrow); B) waist X-ray showing intra-pelvic dislocation of right hip prosthesis (white arrow); C) waist computed tomography showing intra-pelvic dislocation of the right hip prosthesis with medial deviation of right iliac arteries (green arrow); D) computed tomography angiogram showing permeable right iliac arteries (red arrow); E) image of the removed hip implant showing aspect of the hip implant after surgical removal; F) post-operative X-ray of right hip: final aspect after reimplantation of new cemented hip prosthesis