

numerous, and sometimes multifactorial, but in essence may be caused by any perturbation in bony vasculature 1. Such examples range from fracture, joint dislocation, slipped and epiphysis, to more complex diseases such as sickle cell anaemia, rheumatoid arthritis and systemic lupus erythematosus. Furthermore, exogenous causes such as alcohol abuse or corticosteroid administration 1,2 are also apparent, although with a caveat that in 25% of cases the cause remains unknown. All in all, this in turn leads to bone necrosis, which subsequently may lead to osteochondritis dissecans, should articular joint cartilage become involved. The most common affected sites are the following 3: 1) head of femur; 2) neck of talus or 3) scaphoid 1,2. After the bodily insult, anoxia of haematopoietic cells causes bony cell death within 12–48 hours, with bone marrow fat cell death within 5 days.

Case description: Herein we present an interesting case of a 41 year old male accountant, of origin from Tenerife. This gentleman presented as a GP referral to our outpatient rheumatology clinic earlier this year with right sided hip pain and general polyarthralgia. On direct questioning, he was afflicted with this for the prior 3–4 years, affecting his knees, ankles, wrists, fingers and neck. He furthermore disclosed morning stiffness and difficulty in long distance mobility, but no joint swelling. He was taking over the counter analgesia only, to minimal avail, and was a never-smoker, non-drinker. Serologically, his inflammatory markers were negative, and all rheumatological screen was negative. Screening for haemoglobinopathy, myeloma, infection and bone profile were all normal/within normal range limits. On examination, these gentleman exhibited limited range-of-movement (ROM) to his ankles bilaterally, with tenderness. He furthermore displayed tenderness to knee palpation with mild crepitus, albeit to a full ROM. His right hip was particularly tender, with limited ROM, as was his left wrist and chest wall. With this gentleman's clinical findings, he was subsequently scheduled for X-Ray imaging of his left wrist, ankles (bilaterally) and hip. Strikingly, the X-ray imaging revealed avascular necrosis to the following: 1) left scaphoid, 2) talus/calcanium bilaterally and 3) femoral head, also bilaterally. Thus, this gentleman presented with all 3 of the top three sites for avascular necrosis. For medical management, he was subsequently given NSAID/further analgesia, zoledronic acid infusion (to no improvement) and referred to the orthopaedic team for consideration of joint replacement/resurfacing.

Discussion: Avascular necrosis typically affects one joint in a given individual for a presenting complaint. However, in this interesting case we present a young gentleman with 5 affected joints to avascular necrosis, all of which engendering the 'top three' most common sites. It is typically diagnosed by X-Ray, MRI with or without bone scan, and treatments are wide and encompass firstly medical, such as with the use of non-steroidal anti-inflammatory drugs (NSAIDs), bisphosphonates and secondary prevention with statins/anticoagulation as required 3,4. Following which, surgical options are also apparent, and include core decompression, bone grafting, osteotomy or arthroplasty. Although this patient did not respond to zoledronic acid infusion, he is now under consideration for prospective iloprost infusions 5.

Key learning points: Avascular necrosis has a myriad of causes, although in excess of 25% of cases they remain idiopathic. The most common sites affected are that of the femur, scaphoid and ankle, with investigations to confirm this dependant on radiology. Management comprises that of combined therapy with physiotherapy, medical management, with consideration to surgical intervention.

23. MULTI-SITE AVASCULAR NECROSIS OF IDIOPATHIC AETIOLOGY

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Introduction: Avascular necrosis is defined as the death of bone tissues secondary to lack of inadequate vascular supply. Its aetiology is