

Oral Abstracts

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[O104] INDIUM -111 WHITE-CELL SPECT CT SCAN: AN EMERGING IMAGING MODALITY WITH GREAT POTENTIAL IN BONE AND JOINT INFECTION

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Aim: To demonstrate the use of indium-111 white-cell labelled SPECT CT (In111-WC-SPECT-CT) in bone infection.

Method: This novel imaging modality is useful in bone infection. We present three cases of complex osteomyelitis to illustrate this. All were imaged with conventional modalities, but conclusive diagnosis could not be achieved. In111-WC-SPECT-CT was used to provide the definitive imaging that allowed successful treatment.

Results: Case 1- A 29 y/o Male with spina bifida presented with chronic calcaneal osteomyelitis. Previous treatment included debridement, but recurrent infection ensued. MRI showed widespread changes consistent with infection throughout the calcaneus and a below knee amputation was planned. In111-WC-SPECT-CT (Figure 1) showed a distinct localised nidus of infection. A targeted sequestrectomy was performed and the patient has been infection free for four years. He was spared the amputation.

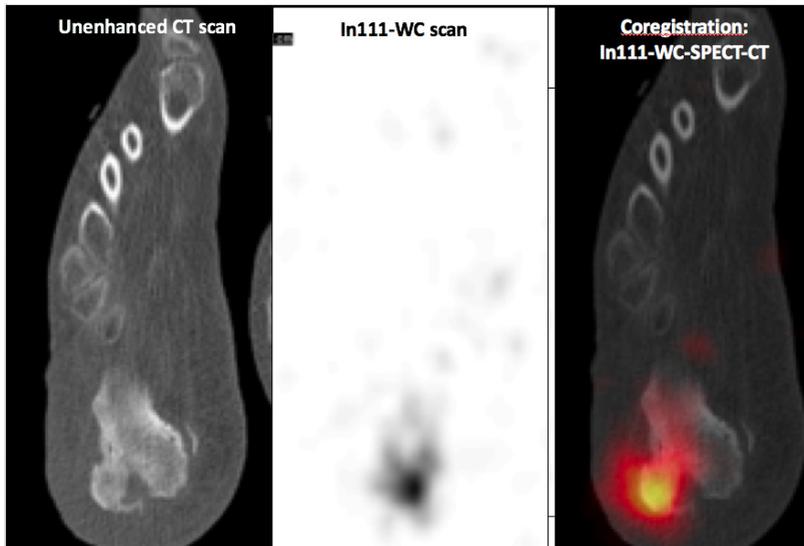


Figure 1

Case-2- A 73 y/o male presented with a radiation induced colo-cutaneous fistula and pelvic chronic osteomyelitis. Surgical treatment included multiple debridements and sequestrectomy. He re-presented pain with pain in his pelvis six months later. MRI was performed and oedema seen in the bone. This was presumed to be infection and further surgery was planned. An In111-WC-SPECT-CT was then performed and confirmed no residual bone infection. The patient was spared surgery.

Case-3- A 38 y/o female was involved in an RTA 6 months prior to presentation. She underwent fixation of her tibia with skin grafting for an open fracture. There was clinical suspicion of deep infection. The metalwork made MRI difficult to interpret. An In111-WCC-SPECT-CT confirmed infection around the metal screw and this evidence instigated a prolonged course of antibiotics to suppress the infection. The screw will be removed after the fracture heals.

Conclusions: In-111-WC-SPECT-CT is an emerging imaging modality. We present three cases of complex bone and joint infection; where this imaging has altered the course of treatment.