Symmetrical nail bed uptake on a ^{99m}Tc -HDP bone scan in a patient with Wegener's granulomatosis

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A ^{99m}Tc -HDP bone scan was performed in a 48-year-old man because of diffuse pain in the extremities and involuntary weight loss. The planar whole-body scan showed no pathological skeletal uptake. However, a rare symmetrical uptake was detected corresponding to the nail bed of all fingers and toes (*top row*). Upon clinical examination of the nails there was no obvious visible cause of the scintigraphic findings. The patient was subsequently diagnosed with Wegener's granulomatosis. After 7 weeks of steroid and cyclophosphamide therapy a repeat bone scan revealed a slight decrease in uptake intensity (*bottom row*).

Soft-tissue uptake on a bone scan has been described in numerous case reports and is often related to heterotopic calcification and/or altered regional vascularity [1]. Nail changes occur in many systemic diseases including vasculitis [2] and are often preceded by some sort of vascular pathology. The typical nailfold pathology present with high frequency (>90%) in Wegener's granulomatosis is caused by avascular areas, and has been found irrespective of clinical digital vasculitis [3]. Hypoxic and ischaemic conditions in extraosseous tissue can result in ^{99m}Tc -MDP uptake due to the deposition of calcium [1]. Conversely, finger clubbing is associated with increased vascularity in the nail bed, and can occasionally be seen on a bone scan [4].

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