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^{99m}Tc-MDP uptake in soft-tissue osteosarcoma in a dog

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Case description

A 6-year-old, female Alaskan malamute domestic dog was presented for a bone scintigraphy with a soft tissue tumour of 4 months duration. The tumour at the time of scintigraphic examination was 10 cm in diameter and was localized in the lateral line on the right chest along the 11th rib. Pathologic diagnosis based upon fine needle biopsy was osteogenic sarcoma. The aim of the scan was to assess the bone involvement with eventual metastases prior to the operation. Bone scanning was performed in anterior and posterior projections using a dual-head gammacamera Multispect-2 (Siemens, Erlangen, Germany), 3 hours post-injection of 99mTc-MDP (OBRI-Polatom, Otwock, Poland).

The bone scan (Figure 1) revealed an accumulation of ^{99m}Tc-MDP not only as the linear foci in the 10th and 12th adjacent ribs, but also in the primary tumour (arrow), more pronounced at its base. The metastases were confirmed *in situ* during the operation, when the ribs were removed.

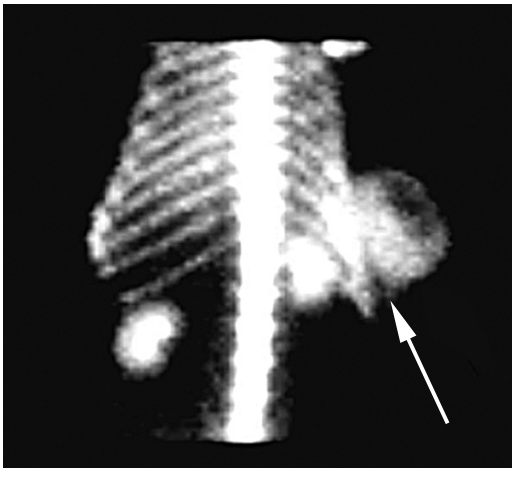

Figure 1. Bone scan of a canine patient. Accumulation in a soft-tissue primary tumour visible to the right (arrow).

Commentary

Soft-tissue accumulation of osteotropic radiotracers was shown previously in metastases of primary osteosarcoma, both in humans and animals [1–3]. In this case, we showed thea tracer's accumulation in a primary tumour. Since both the diagnostic and therapeutic radionuclides have the avidity to accumulate in osteosarcoma [4], perhaps this might be of use in future for therapeutic purposes.

References

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