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PRIMARY INTRANASAL TRANSMISSIBLE VENEREAL TUMOUR IN A DOG

Introduction

Canine transmissible venereal tumour (CTVT) is a contagious cancer affecting dogs worldwide. Living tumour cells are naturally passed by the allogenic transfer between individuals during coitus, especially free-roaming, stray dogs. Therefore, the external genitalia are most commonly affected^(1,2). Extragenital involvement has been occasionally reported in the veterinary literature, however primary occurrence in the nasal cavity remains extremely rare⁽³⁾. In this case report, we present history, clinical signs, diagnostic work-up, treatment and follow-up of an unusual primary intranasal CTVT in a Labrador dog referred with a suspected intranasal neuroendocrine tumour.

Case Description

A 4-year-old, male, Labrador was presented with a one-year history of progressive sneezing, bilateral epistaxis, and a deformity of the nasal bridge and hard palate. Until recently he had lived in Macedonia with his current owners. He had been previously diagnosed with ehrlichiosis and leishmaniasis. A CT-scan showed a large bilateral contrast-enhancing soft-tissue mass occupying the entire nasal cavity, widespread bony destruction and invasion into adjacent structures. Routine histopathology and immunohistochemistry, including PGP5, chromogranin A, S100, CD18, CD20 and CD3, on a pre-referral biopsy led to a presumptive diagnosis of a neuroendocrine tumour. The dog was referred for radiotherapy, but performed aspiration biopsy was highly suggestive of CTVT. Additional immunohistochemistry with vimentin, neuro-specific enolase, GFAP, cytokeratin AE1/AE3, lysosome and CD11d, failed to confirm the presumed diagnosis. Therefore, quantitative PCR was performed and confirmed the presence of CTVT-specific LINE-MYC genomic rearrangement.

Results and conclusions

Following diagnosis of CTVT chemotherapy with vincristine (6x 0.7 mg/m² iv once a week) was commenced resulting in a complete response with a rapid improvement of clinical signs. A CT-scan 2 months after treatment showed only minimal residual changes. This case highlights the importance of including primary intranasal CTVT as a differential diagnosis of canine intranasal neoplasia, even in arid areas like the Netherlands.

References

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