

Nine dogs with proliferative thrombovascular necrosis of the pinnae

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INTRODUCTION

Thrombovascular necrosis of the pinnae is a poorly documented rare disorder of unknown cause, however, recently it has been associated with previous vaccination. Crusting, hyperpigmentation, and ulceration along the apical margin of the pinnae, which may become notched, are the most frequent clinical signs reported. Histopathologically it is characterized by vasculopathy with fibrinoid degeneration and thrombi formation, sometimes with recanalization rather than vasculitis.

During the Forth World Congress of Veterinary Dermatology in San Francisco 2000, we presented one case. Now nine additional cases are reported where the clinical and dermatopathological changes are described.

MATERIAL AND METHODS

This retrospective study reports the clinicopathological findings of nine dogs. Electronic computerized medical records searched between 2012 through 2015. In each case a skin biopsy was taken and processed routinely for microscopic examination.

RESULTS

Clinical findings: Two dogs were Miniature schnauzers and the others were different breeds. The age ranged from 2 to 12 years old, four dogs (44%) were ≤ 3 years. There were 5 females (2 spayed) and 4 males (3 castrated). Six cases (66%) had a bilateral presentation mainly with crust formation and ulceration of pinnae margins (see fig.1 and 2).



Fig-1 Two clinical cases with unilateral presentation of bleedings and indentation lesions (A and B).



Fig-2 Schnauzer showing a bilateral notched crusting lesions (A and B).

Histopathological findings: Epidermal crusting, necrosis and ulceration were constant changes in all dogs (see fig.3).

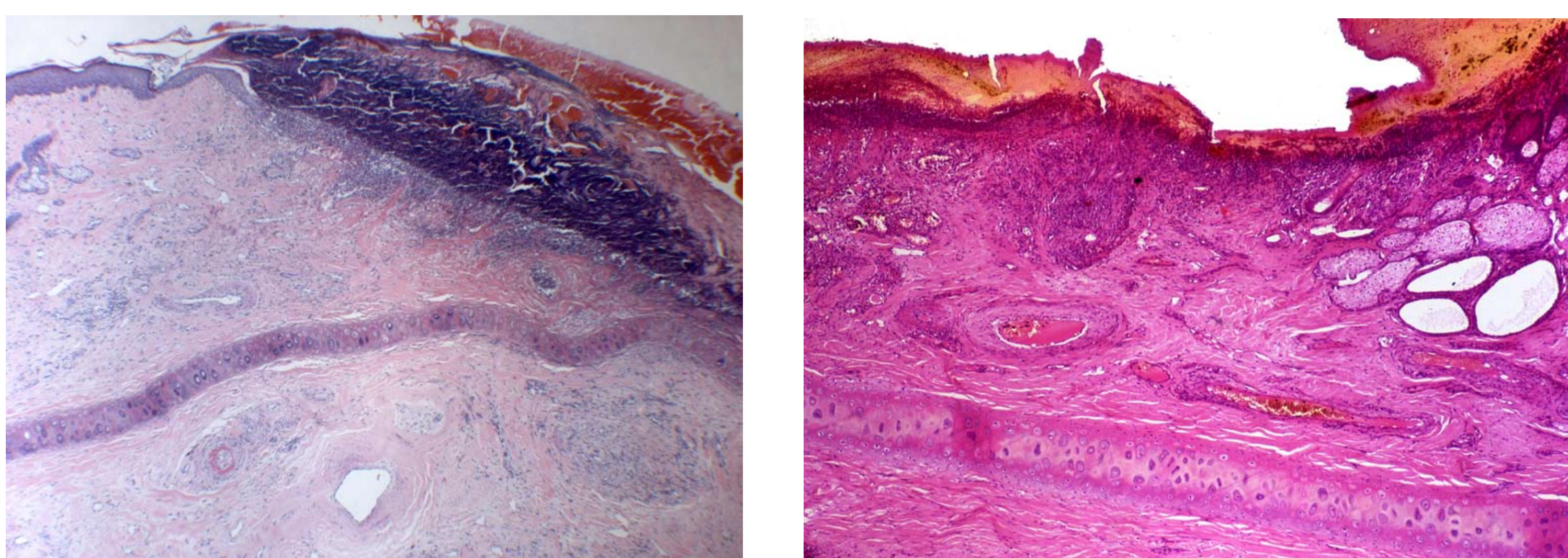


Fig-3 Histopathological findings. The epidermis had necrosis, ulceration and crust formation. In the dermis especially in fig A, the cartilage is irregular with vessels proliferation and moderate diffuse chronic inflammation.

Dermal thrombosis with adjacent coagulative necrosis and chondritis was observed in 4(44%) patients. Additionally, 4 dogs had a degenerative vasculopathy and one presented recanalization (see fig.4).

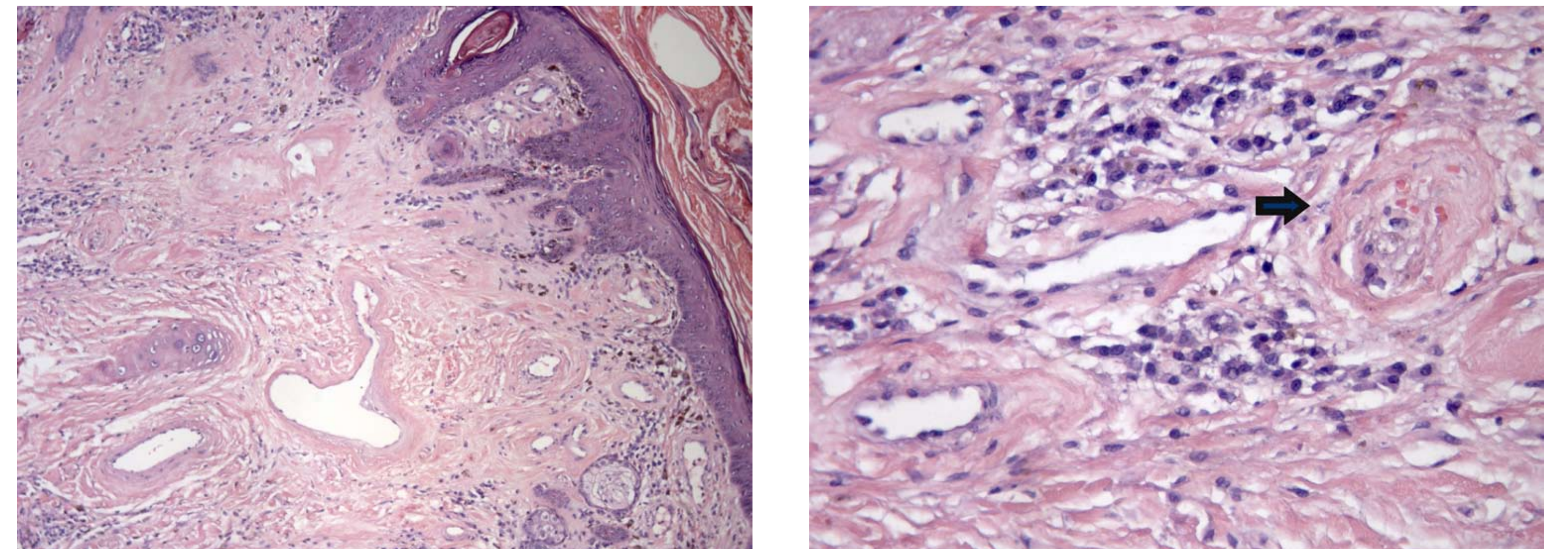


Fig-4 The dermis shows artery wall degeneration and thrombosis. The arrow (inset) points the thrombosis (A and B).

DISCUSSION

There are no apparent age, breed or sex predispositions. Nevertheless, Morris, D.O. (see reference) reported an overrepresentation in Dachshunds and Rhodesian ridgebacks. However, in our series multiple breeds were affected and only 2 out of 9 were Miniature Schnauzers. Regarding the age and gender unfortunately, there are no retrospective studies to correlate our findings, but it appears to be disease of young dogs with no gender predisposition, which is in accordance to what is reported in the literature. Moreover, the majority of dogs showed a bilateral presentation with crust and ulceration of the pinnae margins, findings also in concordance with the literature. Despite that some reports mentioned vasculitis as a histopathological finding, such changes were not observed. On the contrary four dogs presented degeneration of the arterial wall. In addition, for the first time a chondritis is reported. Finally, there are personal communications (Vetderm List) associating this disease with allergic dermatitis or previous vaccination; in this series only one dog developed the lesion a few days after receiving a polyvalent vaccination that included rabies and there was not evidence of allergic dermatitis. Vasculitis and neoplasia should be considering among the clinical differential.

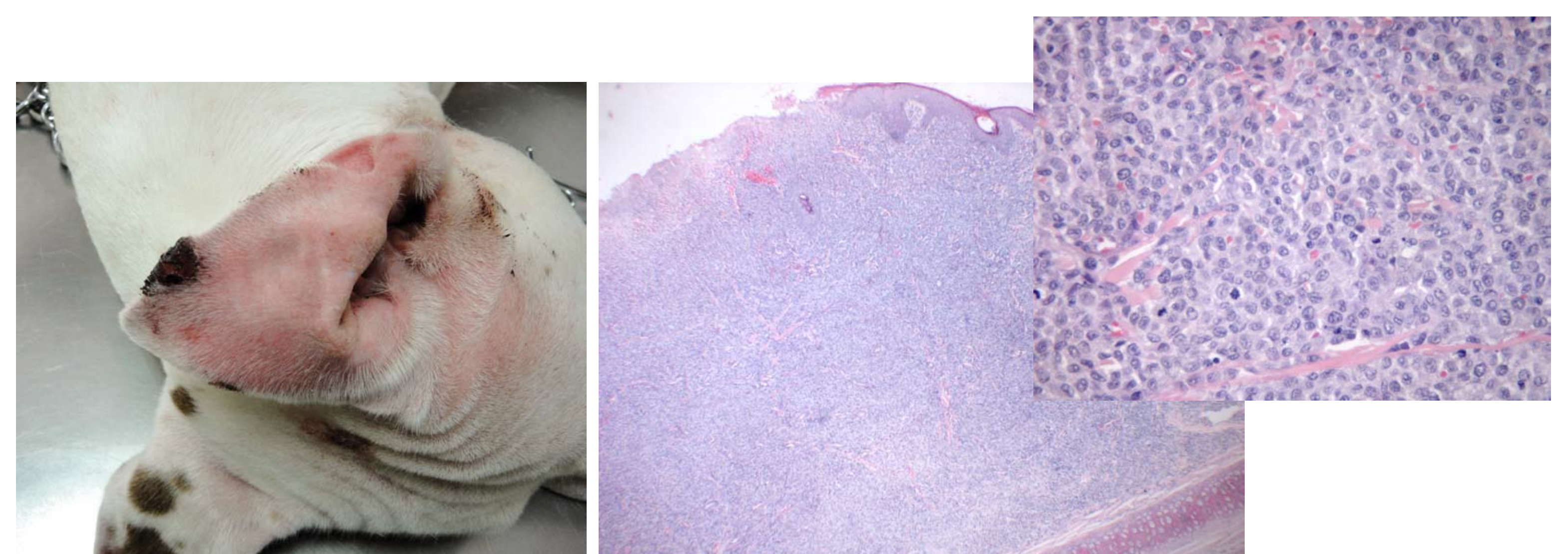


Fig-5 A dog showing a necrotic area in the edge of right pinna due to a histiocytoma (A). In figs B and C the microscopic aspect of this tumor. See the inset

LITERATURE RECOMMENDED

-Morris, D.O. Ischemic Dermatopathies. *Vet. Clin. Small Anim.* 43 (2013) 99-111

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