



RHABDOMYOMATOUS MESENCHYMAL HAMARTOMA IN A DOG

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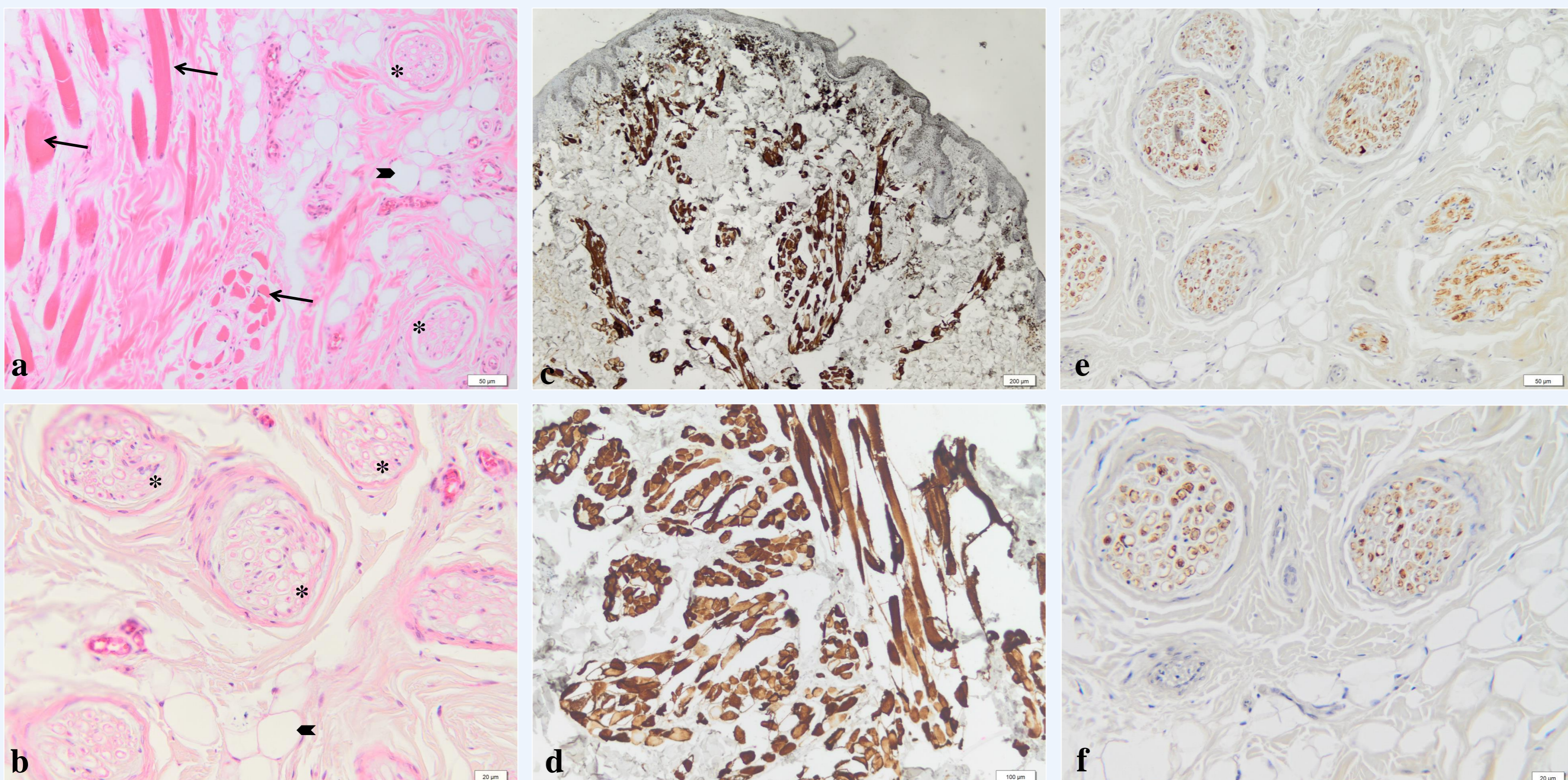
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Rhabdomyomatous mesenchymal hamartoma (RMH), also known as striated muscle hamartoma, is an uncommon tumour-like process in animals, with only a few cases described in the literature. Here we present a case of RMH in a dog, along with the histopathological and immunohistochemical features.

A 7-year old male mixed-breed dog presented with a papillary-like cutaneous mass on the skin of the head. The tumour measured approximately 0.5 x 1 cm and excisional biopsy was performed for microscopical diagnosis. The sample was stained with hematoxylin-eosin and Masson's trichrome stains, followed by immunohistochemical evaluation, using anti-S100 and anti-desmin antibodies.

The histopathological examination revealed a non-encapsulated, poorly circumscribed dermal mass covered by intact epidermis. The mass consisted of haphazardly arranged dense collagen fibres admixed with interfollicular proliferation of well-differentiated striated muscle fibres. The muscle fibres were arranged individually or in bundles, extending towards the epidermal basement membrane. Multifocally, islands of mature adipocytes, nests of epithelial cells with sebaceous differentiation, and bundles of peripheral nerve tissue were identified. All components were well differentiated, and no malignancy features or nuclear atypia were observed. Multifocally, the overlying surface epithelium showed hyperkeratosis and moderate acanthosis. Immunohistochemically, the mass showed intense desmin and S100 expression. Collectively, these data supported a diagnosis of rhabdomyomatous mesenchymal hamartoma.



Histological and immunohistochemical aspects of the RMH: a-b: dense collagen fibres, well-differentiated striated muscle fibres (arrow), adipocytes (arrow head) and bundles of peripheral nerve tissue (asterisk), HE stain; c-d: IHC stain, intense expression for desmin; e-f: IHC stain, positive expression for S100

This report offers an evaluation of a rare tumour-like lesion, which, although uncommon in animals, must be included in the differential diagnosis when assessing cutaneous masses. RMH has a good prognosis following surgical removal.

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