Case Report

ACROCHORDON: AN UNCOMMON TUMOUR LIKE GROWTH IN DOGS

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ABSTRACT

Three cases of acrochordon were diagnosed by gross, cytological and histopathological examinations. Each case was an unique presentation, in which patient exhibited a soft, pendulous mass on the ventral thorax, right thigh and a small, firm growth on the tail. The affected animals were a six-year-old Rottweiler bitch, a four-year-old Labrador bitch and a six-year-old Labrador dog. All the animals appeared clinically normal. On gross examination, the growths were pendulous, soft and ulcerated. The cut surface appeared creamy white in colour. Cytological analysis of impression smears revealed individual to multiple spindle cells. Histopathological examination revealed a redundant dermal fibrous tissue covered by a hyperplastic epidermis. The stromal component appeared more prominent in these cases. Based on the gross and histopathological features, the cases were diagnosed as acrochordon.

Keywords: Acrochordon, Dog, Rottweiler, Labrador.

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INTRODUCTION

Acrochordons are tumour-like lesions of the skin occurring as single or multiple exophytic to pedunculated masses composed of dermal and epidermal tissues and referred to as skin tags, soft fibromas and fibroepithelial polyps (Lever and Schaumburg-Lever, 1990). These tumour-like lesions are uncommon in dogs and cats. Acrochordonous plaques are composed of a coalescence of filiform polyps forming a painless and non-pruritic mass (Gross *et al*., 2005). This is a focal or multifocal exophytic lesion composed of redundant epidermis and dermis. This lesion may be seen at any age but is more common in dogs greater than five years old. The most frequently affected sites are limbs (Goldschmidt and Goldschmidt, 2017).

CASE HISTORY

Three dogs (Rottweiler one case and Labrador Retriever two cases) aged between

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four to six years were presented to Veterinary Clinical Complex, Veterinary College and Research Institute, Orathanadu, with the history of raised non-pigmented, skin growth measuring half cm to four cm in diameter noticed over the ventral thorax, right thigh and tail (Fig. 1& 2). These tumours were present on the animals for over a period of two years.

MATERIALS AND METHODS

The animals were aseptically prepared and tumour masses were surgically excised under local anaesthesia. Masses were incised and impression smears were taken in clean glass slides after blotting the cut surface. Cytological smears were fixed with methanol for five minutes and dried. The smears were stained with Giemsa stain (NICE Chemicals Pvt. Ltd) and examined under light microscope. The tissue samples collected were fixed in 10 per cent formalin for histopathology. Tissues were processed as per the standard paraffin embedding technique and tissue sections of 5 µm thickness were prepared using a manual microtome and processed as per standard Haematoxylin and Eosin (H&E) staining protocol (Bancroft and Layton, 2019).

RESULTS AND DISCUSSION

Grossly, the growths were soft, pendulous, and ulcerated. Alopecia was noticed over the lesion. The cut surfaces of the masses were creamy white in colour. Gross findings are similar to the earlier reports (Goldschmidt and Goldschmidt, 2017). In animals, single or multifocal concurrently appearing acrochordons or skin tags were known to occur rarely. Impression smears revealed single to multiple spindyloid cells. Ferreira *et al*. (2019) reported high cellularity, mostly nucleated keratinocytes with keratinous debris between cell clusters in cytological evaluation. Histopathological examination of tissues showed redundant dermal fibrous tissue (Fig. 3) covered by hyperplastic epidermis exhibiting hyperkeratosis (Fig.4). The stroma was more prominent. The histopathological findings are as similar as that of earlier reports (Bidaut *et al*., 2003 and Goldschmidt and Goldschmidt, 2017).

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Fig.1. Bitch (Rottweiler) showing pendulous soft oval ulcerated mass in ventral thorax

Fig.2. Bitch (Labrador Retriever) showing pendulous ulcerated soft mass in right lateral thigh.

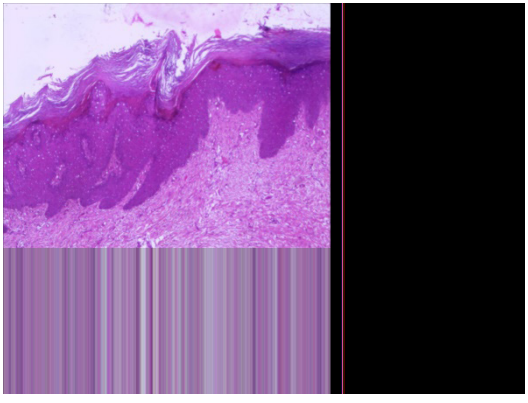

Fig. 3. Bitch (Labrador Retriever) showing thick dermal fibrous tissue in right lateral thigh. H&E 40x

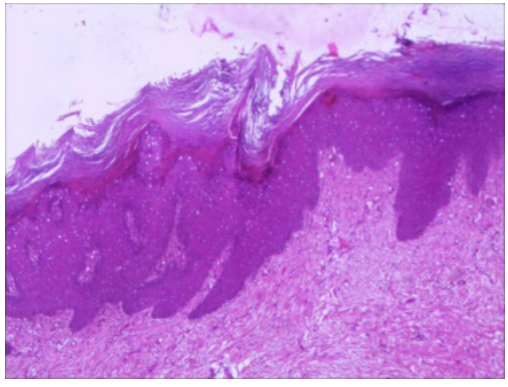

Fig.4. Dog (Labrador Retriever) showing hyperplasia of epidermis with hyperkeratosis – Tail H&E 40x