Case report

A dermoid sinus in a Siberian Husky

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Abstract  The aim of this paper is to report a case of dermoid sinus in a Siberian Husky dog. Skin lesions were characterized by dual fistulae in the dorsal thoracic region. Surgical dissection revealed cysts (full of debris, hair and purulent exudate) connected by a fibrous cord to the first and the second thoracic vertebrae.

Keywords: dermoid sinus, Siberian Husky, congenital disease.

INTRODUCTION

A dermoid sinus is a neural tube defect resulting from incomplete separation of the skin and neural tube during embryonic development.1–4 This defect has been well documented in Rhodesian Ridgeback dogs.5–8 It has been reported in a Shih-tzu, a Boxer,9 an English Bulldog10 and in a Yorkshire Terrier.11 To the authors’ knowledge this congenital disease has not been reported in this canine breed.

CASE REPORT

A 16-month-old male Siberian Husky was referred with a 1-month history of a fistula on the dorsal cranial thoracic region (Fig. 1a, b). Clinical history revealed that 6 months previously a foreign body reaction was suspected in that area and the lesion surgically drained. The animal was normal on general physical examination. The tract area was not painful to the animal on palpation, and neurological deficits were not evident on physical examination. A draining tract with pus was observed. Impression smears showed cocci and neutrophils suggestive of bacterial infection. Antibiotic treatment (20 mg/kg Cefalexin twice a day for 3 weeks) was not successful. Radiography of the fistula was not significant. The fistula was surgically excised. A fistulous tube extending cranially was noted. The proximal third of this structure appeared to be a fibrous cord connected to the spinous process of the first and second thoracic vertebrae. Curettage of the fistula showed hair next to the spinous process. Internal inspection of the fistulous tube revealed hair, skin debris and exudate (Fig. 2). The histopathology showed a tubular structure lined by stratified squamous epithelium and containing hair, keratin and sebum (Fig. 3). Hair follicles, sweat and sebaceous glands were observed in connection to the fistula.

DISCUSSION

History, clinical findings and the histopathology confirm the presence of a dermoid sinus. This disease is often found in young animals and the affected regions are usually the cervical, the thoracic and the lumbar tracts.5,10 In Rhodesian Ridgeback dogs, dermoid sinus is thought to be inherited as an autosomic recessive. It is due to a lack of the ectoderm separation from the neural tube during embryogenesis and results in a tubular invagination of the cutis, along the dorsal median line, in the lower tissues ending in a dead end. Mann & Stratton5 classified dermoid sinuses by their depth of penetration in different morphologic types: the less severe form appears as a fistula ending with a fibrous cord; in the most severe cases, the fistula is connected to the spinal cord and meningitis is likely to occur. Surgical excision is the treatment of choice, with careful blunt dissection of all sinus structures.3 In this case a complete excision was performed and no relapse was observed at two re-examinations within the following 10 months. This syndrome has been occasionally reported in other breeds, such as Shih-Tzu, Boxer and Yorkshire terrier dogs. For these breeds no data concerning the mode of inheritance are available. To the authors’ knowledge this congenital disease has not been reported in Siberian Husky dogs. No information about the dog’s pedigree was obtained, but the owner was strongly advised not to use this dog for breeding.

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REFERENCES


Figure 1. Dorsal view of the Siberian Husky. (a) Two fistulas are present. (b) Closer view after hair clipping.
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Figure 2. Internal portion of the fistulous tube: presence of hair, skin debris and exudate.

Figure 3. Photomicrograph of tubular structure lumen lined with epidermal epithelium and containing hair keratin and sebum (×10).

Résumé  Le but de cette étude est de décrire un cas de sinus dermoïde chez un Siberian Husky. Les lésions consistaient en des fistules de la zone thoracique dorsale. Une exérèse chirurgicale a montré des kystes (remplis de poils, de débris et d’un exsudat purulent) en relation par une corde fibreuse avec la première et la deuxième vertèbre thoracique. [Cornegliani, L., Ghibaudo, G. A dermoid sinus in a Siberian Husky. (Un cas de sinus dermoïde chez un Siberian Husky.) Veterinary Dermatology 1999; 10: 47–49.]

Resumen  El objetivo de este estudio es describir un caso de seno dermoide en un Husky Siberiano. Las lesiones cutáneas se caracterizaban por fístulas dobles en la región torácica dorsal. La resección quirúrgica reveló quistes (llenos de detritos, pelos y exudado purulento) conectados por un cordón fibroso a la primera y segunda vértebra torácicas. [Cornegliani, L., Ghibaudo, G. A dermoid sinus in a Siberian Husky. (Seno dermoide en un Husky Siberiano.) Veterinary Dermatology 1999; 10: 47–49.]


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