



Short Communication

Apocrine Secretory Adenoma in a 2.5 year Old Male Great Dane Dog

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Apocrine glands are the major type of sweat gland in dogs, and distribution of eccrine sweat glands is limited to footpad (Goldschmidt and Shofer, 1992). Apocrine sweat gland tumors are rather common in dogs and tend to occur on the head, neck and limbs. The Golden Retriever is a breed that shows a predisposition to such tumors (Kalahar *et al.*, 1990). The tumor greatly resembles its human counterpart and originate in the secretory part of eccrine sweat glands (Nibe *et al.*, 2005).

Sweat gland tumors were accounted for a 0.7- 2.2% in all skin tumors in dogs, and occur as a solitary or rarely as multiple small painful nodules. They are commonly localized in inguinal and axillary region of the body (Conroy and Breen, 1972; Kalahar *et al.*, 1990; Uptal *et al.*, 1999; Schulman *et al.*, 2005; Jasik *et al.*, 2009). The presented case is reported due to its rare occurrence as well as being the first local report.

CASE REPORT

A 2.5 year-old, male “Great Dane” was presented at the surgery clinic of the “Faculty of veterinary medicine”, “Cairo University”, with a history of skin swellings localized on the shoulder, thorax and preputial areas for 45 days. They were 3-4 cm in diameter and painful. Some of the swellings were ulcerated (Fig. 1).

CLINICAL EXAMINATION

The dog was alert and responsive with normal temperature, pulse and respiration. The skin swellings were painful on pressure and attached to the skin. Few swellings were ulcerated. Blood sample was collected for CBC. Radiography and ultrasonography were performed for any evidence of metastasis. One intact nodule was surgically excised for macro/microscopic examinations. The excised mass was fixed in 10% neutral-buffered formalin and processed by conventional methods, embedded in paraffin, sectioned at 5 µm and stained with H & E for histopathology.



Fig.1. 2.5: Year-old Great Dane male dog with multiple skin neoplastic lesions ,A- (white arrows) , B- (black arrow).

TREATMENT AND DISCUSSION

Radiography revealed no evidence of pulmonary metastasis, mediastinitis or pleuritis. Ultrasonography revealed enlarged inguinal lymph nodes. CBC showed marked monocytosis (1.69 m/mm^3) of the total WBC (6.89 m/mm^3).

Macroscopic examination of the excised mass measured 3x4 cm and exhibited soft to rubbery consistency and mammilated grey pink tissue pieces on cut section. Histopathological examination revealed lobulated growth pattern, made up of highly cellular population of small round cells with modest cytoplasm arranged in sheets and lobules intermixed with lymphocytes. The growth was highly vascular with intervening fibrous tissue septa (Fig. 2). Definitive diagnosis was consistent with features of spiradenomata. Surgical excision of all swellings was the only recommended treatment

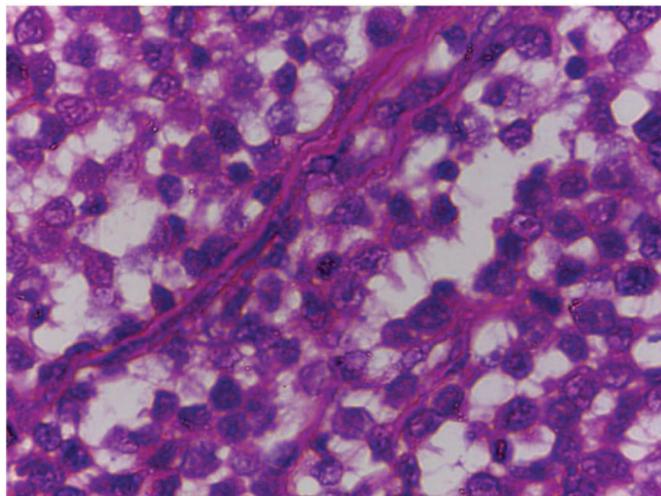


Fig. 2: Cutaneous apocrine spiradenoma. 2.5-year-old male Great Dane dog. H & E. Note the heavy population of small neoplastic cells which had a moderate amount of eosinophilic cytoplasm, separated by fibrovascular stroma (x100).

Macroscopic and histopathological results of the neoplasm described in this report was identical to the canine sweat gland neoplasms described by (Conroy and Breen, 1972; Rowland *et al.*, 1991; Uptal *et al.*, 1999; Nibe *et al.*, 2005; Jasik *et al.*, 2009; Yumusak *et al.*, 2010).

Although sweat gland tumors of dogs are usually benign. However on rare occasion, they can undergo malignant transformation and prone to metastasis to regional lymph nodes and other organs by lymphatics (Conroy and Breen, 1972; Weiss and Frese; 1974 and Kalaher *et al.*, 1990).

In this report, treatment was by surgical excision of all lesions. Clinical follow-up information for 3 months P.O. indicated neither recurrence nor metastasis. Similar treatment was recommended by (Schulman *et al.*, 2005). There are conflicting studies regarding the risk of postexcisional recurrence or generalized metastasis of such tumors (Kalaher *et al.*, 1990; Uptal *et al.*, 1999 ; Simko *et al.*, 2003)

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