

Squamous Cell Carcinoma At The Tongue of a Cat

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ABSTRACT

Squamous cell carcinomas are malign tumors composed of squamous epithelium of skin and mucous membranes and showing squamous differentiation. A male, 11-year-old Chinchilla race cat was brought to Ankara University, Veterinary Faculty, Veterinary Hospital, Department of Internal Diseases with complaints of anorexia, weakness, dysphagia, fatigue and difficulty in swallowing solid food. Metronidazole (15 mg/kg, iv), amoxicillin-clavulanic acid (25 mg/kg, sc) and fluid treatment were administered to the patient, respectively. As a predisposing factor in the development of oral squamous cell carcinoma in cats, exposure to cigarette smoke, the use of flea collar, and especially nutrition with tuna fish- containing ingredients are mentioned.

Keywords: Carcinoma, cat

INTRODUCTION

Squamous cell carcinomas are malign tumors composed of squamous epithelium of skin and mucous membranes and showing squamous differentiation (Erer, 2000; Jubb, 1991). These tumors constitute 60-70% of malignant tumors in the cats (Stebbins et al., 1989). Locally invasive squamous cell carcinomas are reported to be located in sublingual/lingual region, maxillary, mandibular, cheek mucosa, lip or caudal pharyngeal regions in cats (Hayes et al., 2007). Although it is thought to have low metastatic characteristics for many years, a study reported that metastasis at the rate of 35.7% was found in mandibular lymph nodules (Gendler et al., 2010).

Environmental factors that predispose to the development of oral squamous cell carcinoma in cats are defined as exposure to cigarette smoke (Snyder et al., 2004), the use of flea collar (Bertone et al., 2003) and nutrition with tuna fish-containing ingredients

(Bertone et al., 2003). The deterioration of epidermal growth factor receptors in cells (Takeuchi and Ito, 2010) and the increase in the production of cyclooxygenase-1 (COX-1) (Hayes et al., 2006) endogenously predispose to tumor growth.

CASE

A male, 11-year-old Chinchilla race cat was brought to Ankara University, Veterinary Faculty, Veterinary Hospital, Department of Internal Diseases with complaints of anorexia, weakness, dysphagia, fatigue and difficulty in swallowing solid food. At the physical examination, it was determined that the tongue was deviated to the left side and kept in the same position continuously, and the right side of the tongue was thickened. Neurological examination

showed no abnormality. Urea (78.9 mg/dL), creatinine (1.92 mg/dL) CK increases (315.1 U/L) comorbid with

lymphopenia ($0.8 \times 10^9/\text{mL}$) were detected in the patient.

Metronidazole (15 mg/kg, iv), amoxicillin-clavulanic acid (25 mg/kg, sc) and fluid treatment were administered to the patient, respectively. At general anesthesia, a biopsy was taken from the bulk at the root of the tongue with fine needle biopsy. The diagnosis of squamous cell carcinoma including epithelial cell layers in the pleomorphic structure in histopathologic sections; hyperchromatic, irregularly restricted, with large diameter, centrally located nuclei and eosinophilic cytoplasm was confirmed. After the biopsy, the patient died within approximately 2 weeks.



Figure 1 Tongue was positioned on the left side

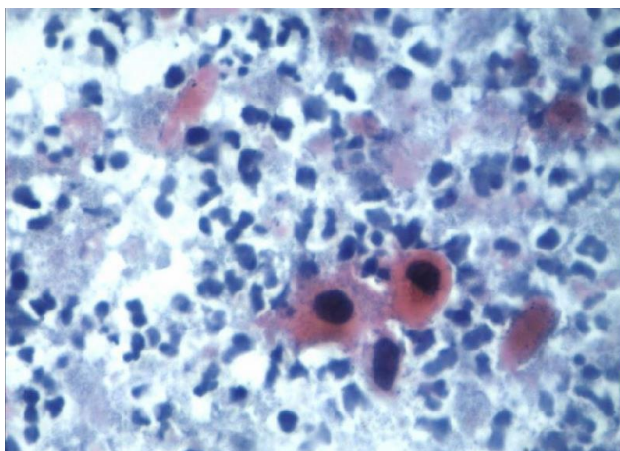


Figure 2 Histopathologically squamous cell carcinoma

DISCUSSION

As a predisposing factor in the development of oral squamous cell carcinoma in cats, exposure to cigarette smoke, the use of flea collar, and especially nutrition with tuna fish- containing ingredients are mentioned. Considering that this cat is constantly fed with canned foods and exposed to intense cigarette smoke, the effect of these factors on the development of squamous cell carcinoma at the tongue at cats should be taken into consideration.

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