

SUCCESSFUL SURGICAL MANAGEMENT OF CERVICAL SIALOCELE IN GERMAN SHEPHERD DOG

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[Received: 08.12.2014; Accepted: 27.5.2015]

A year old male German Shepherd dog with swelling and enlargement of the intermandibular and cervical region with duration of one month was presented to the Veterinary College hospital, Bangalore. Based on the history and clinical findings the animal was diagnosed as cervical sialocele with the involvement of the left sublingual and mandibular salivary glands. Surgical treatment consisting of the excision of the mandibular and sublingual salivary glands along with ducts and salivary cyst. Animal recovered uneventfully.

Key words: Sialocele, Sublingual, Mandibular, Cervical.

Introduction

A salivary mucocele or sialocele is an abnormal accumulation of saliva in the subcutaneous tissue adjacent to a damaged salivary gland or duct and is surrounded by granulation tissue. The source of saliva is from a ruptured salivary gland or duct. The sublingual and mandibular salivary glands are most commonly affected. Rarely, collection of saliva ventral to the eye globe known as zygomatic mucocele had been reported (Hedlund and Fossum 2007; Tobias 2010). In most cases, the inciting cause of a salivary mucocele is usually unknown although blunt trauma, salivary gland or duct foreign bodies, sialoliths, and dirofilariasis had been suggested (Smith, 2005 and Tobias 2010). The diagnosis of salivary mucocele is based on the history, clinical signs and histopathologic findings.

Affected animals are presented with soft and fluctuant swellings which are painless except in the acute phase of the inflammatory response. Definitive treatment of this condition requires resection of the affected salivary gland/duct complex. Repeated drainage or injection of cauterizing or anti-inflammatory agents will not only fail to eliminate the mucocele but will complicate the surgical procedure because of subsequent abscessation or fibrosis (Hedlund and Fossum

2007; Knecht, 1998). Report of old cervical mucocele is described in the present paper.

Case history and observations

A year-old male German shepherd dog was referred to the Department of Surgery and Radiology, Veterinary College, KVAFSU, Bangalore with obvious swelling and enlargement of the cervical and intermandibular region. According to the owner, the swelling had appeared a month ago, and during this period the dog had no other abnormalities. The gradually enlarging swelling had been drained on several occasions by a private veterinarian and dilute povidone iodine solution had been injected into the swelling without clinical success.

On clinical examination, a very large fluctuant, nonpainful fluid filled mass was evident in the cervical and intermandibular region. Body temperature, pulse, and respiration were within normal range and complete blood count revealed normal. Based on the history and clinical findings, cervical sialocele was suspected. Aspiration of the mass under aseptic conditions was performed and a thick mucoid, yellow blood tinged fluid confirmed the presence of saliva and a diagnosis of salivary sialocele. Surgery was undertaken to excise the involved gland and mass.

Surgical procedure and Results

Dog was premedicated with atropine sulphate @ 0.04 mg / kg body weight subcutaneously. As a preanesthetic, diazepam @ 0.5 mg / kg body weight was given intravenously. After 10 minutes, 2.5% Thiopentone sodium was administered at the dose rate of 25 mg / kg body weight given to effect for induction and maintenance of anesthesia. The affected side was determined to be the left side by placing the animal in dorsal recumbency (Figure 1). The left mandibular and sublingual salivary glands were excised by making an incision over the mandibular gland region just caudal to the ramus of the mandible with the animal in right lateral recumbency. After incising skin, subcutaneous tissues, and the platysma muscle, the capsule of the mandibular



Figure 1. photograph showing swelling in the intermandibular and cervical region.

Diseases of salivary glands are rare in small animals. sialocele is the most common clinically recognized disease of these structures in the dog. The incidence of canine sialoceles is less than 0.5 percent. They occur in dogs three times more frequently than in cats (Smith, 2005). Clinically, a salivary mucocele is observed as an abnormal swelling containing saliva. The swelling is commonly observed in the cranial cervical or intermandibular and sublingual regions (Hedlund and Fossum, 2007). Although all breeds are susceptible, there are reports indicating that Poodles, German Shepherds, Indian Journal of Canine Practice

salivary gland was identified and incised to expose the gland. Dissection was continued further to expose sialocele (Figure 2). Dissection was continued rostrally to include the mandibular duct and closely associated sublingual gland. After complete removal, the incised muscular and subcutaneous tissues were sutured with absorbable sutures and the skin was routinely closed with nonabsorbable sutures. The animal recovered from anesthesia uneventfully. Post-operatively, amoxicillin was administered @ 20 mg/kg body weight intravenously for 7 days. Pentazocin hydrochloride @ 1 mg/kg body weight was administered daily once for three days intramuscularly. Animal recovered uneventfully without any complications and skin sutures were removed after 10 days.



Figure 2. Intra-operative photograph showing sialocele and mandibular salivary gland (Arrow mark).

Dachshunds, and Australian Silky Terriers are frequently affected (Knecht, 1998). In the present case also affected breed was German Shepherd. Etiology of salivary mucocele is usually unknown although blunt trauma may be the common cause (Tobias,2010). In the present report, blunt trauma in the form of chain was the most probable inciting cause. Weber *et al.*, 1986 and Yasonu *et al.*, 2011 opined that resection of the mandibular and sublingual salivary glands alongside drainage and excision of the redundant tissues is the most definitive treatment of salivary sialocele. Same surgical procedure was

employed in the present case also. Bellenger and Simpson (1992) employed drainage alone in 42% of cases which resulted in the recurrence of the condition within the next 48 hours. Similar finding was also observed in the present case, and, as stated by the dog's owner, the only form of treatment the animal had received before surgery consisted of drainage and injection of povidone iodine solution as a cauterizing agent which had merely complicated the situation. After surgical treatment no such complications were encountered.

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