

# CANINE ORAL PAPILOMATOSIS ALONG WITH CONCURRENT DEMODICOSIS: REPORT OF TWO CASES

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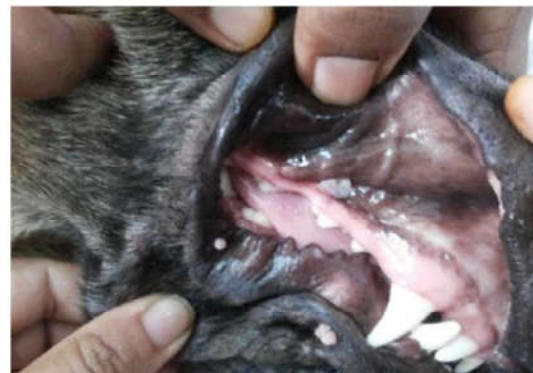
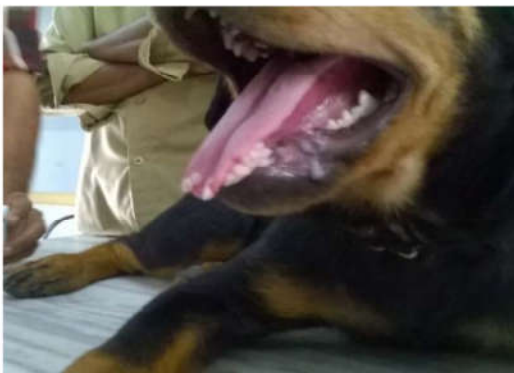
Canine oral papillomatosis is a papilloma virus induced transmissible condition and usually occurs in animals younger than one year. Severe oral papillomatosis may be seen in immunocompromised dogs with lymphoma. *Demodex canis* is a normal resident of the intact canine skin. Primary or secondary immunosuppression can lead to clinical demodocosis. The present paper reports two cases of canine oral papilloma with concurrent demodocosis.

**Keywords:** Canine oral papilloma, *Demodex canis*, Histopathology,

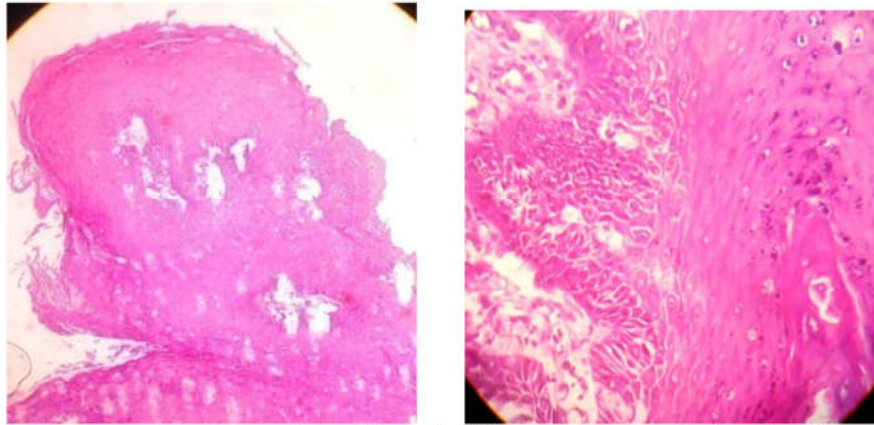
Canine oral papillomatosis is a papilloma virus induced transmissible condition and usually occurs in animals younger than one year. The lesions are papilliform or cauliflower like and can become quite florid. They are generally white and friable growths and observed mostly on the mouth, tongue, palate, larynx and epiglottis. The lesions usually regress spontaneously and the immunity is long lasting. Severe oral papillomatosis may be seen in immunocompromised dogs with lymphoma (Kahn and Line, 2010). Corticosteroid induced immunosuppression can be associated with the onset of demodocosis and oral papillomatosis (Sundberg *et al.* 1994). Microscopically, intranuclear inclusion bodies that contain virus particles can be seen in some stages of papillomatosis (McGravin *et al.* 2001). The present paper reports two cases of canine oral papillomatosis along with demodocosis.

## Case History and Observations

*Case 1.* A female Rottweiler puppy aged, three and half months was presented to the University Veterinary Hospital, Kokkalai with proliferative lesions on the tongue, gum and face (Fig. 1-A.) Clinical examination revealed alopecic, erythematous lesions on the fore limbs. Skin scrapings examination revealed *Demodex canis*. *Case 2.* An eight month old German Shepherd dog was referred to the clinic with papillomatous lesions in the oral mucosa and tongue (Fig. 1-B.) along with alopecic lesions on the lower aspect of neck. The skin scrapings examination revealed *Demodex canis* organisms. The pidunculous growths were enucleated and sent for histopathology which revealed squamous epithelial lesion with marked hyperkeratosis and acanthosis (Fig. 2).



**Figure 1.A.** Case 1. Rottweiler puppy with papillomatous growths on the tongue **B.** Case 2. German Shepherd puppy with proliferative growths on oral mucosa and gum.



**Figure 2. Histopathology of canine oral papilloma. A. Pinnaculous growth showing hyperkeratosis and hyperplasia of epithelium, H&E staining 10 X. B. Thickening of stratum corneum and stratum spinosum, H&E staining 40 X**

### Treatment and Discussion

On the basis of clinical signs, microscopic and histopathological examinations, both the cases were diagnosed as cutaneous squamous cell papilloma with concurrent localized demodicosis. The first pup was treated for demodicosis with Amitraz@0.05% topical application and Immunol Syrup 1 tsp BID orally.

After one month, skin scraping examinations of both the dogs were negative for *Demodex sp.* Papillomatous growth had undergone spontaneous regression within two months. The second case was treated with oral ivermectin @200 µg /kg body weight daily for first week, 300 µg /kg in second week and 400 µg / kg for the next 2 weeks.

Papillomatous growths were exfoliated spontaneously in three months. Grossly, papillomas appear white or gray, raised and pedunculated with a keratinized surface. Microscopically papillomas consist of an acantholytic, hyperplastic, stratified squamous epithelium and a proliferated connective tissue stroma, creating folds and fronts. Cells of the stratum spinosum enlarge greatly and have vesicular cytoplasm, so called ballooning degeneration.

In the present report, both the cases of canine oral papillomatosis are associated with

demodicosis. *Demodex canis* is a normal resident of the intact canine skin and present in small numbers in virtually every dog. Most animals are only carriers of the mites and do not develop clinical symptoms. However, primary or secondary immunosuppression is important in the pathogenesis of clinical form of demodicosis as also reported by Kahn and Line (2010). Oral papillomatosis is also reported to be associated with immunosuppression. Immunosuppression, natural or iatrogenic, might have precipitated the diseases in both these cases.

### References

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