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Successful therapeutic management of canine oral papillomatosis: A case study

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Abstract

A seven month old German shepherd she dog was presented with several cauliflower like growth on oral mucosa since the pet was three months of age. These growths were grayish-white in colour and were diagnosed as canine papillomatosis based on clinical examination. Earlier surgical treatment along with thuja (a homeopathic medicine) and autohemotherapy was not found to be effective in this case. Later, lithium antimony thiomalate proved effective in treating the condition.

Keywords: she dog, canine papillomatosis, lithium antimony thiomalate

Introduction

Canine papillomatosis is caused by Canine Papillomavirus (CPV), a double-stranded, non-enveloped DNA virus of the Papovaviridae family which has a strong tropism for cutaneous squamous or mucosal epithelium (Gross *et al.*, 2005) [8]. Papillomaviruses induce severe, nonregressing and recurrent infections in animal and human hosts (Nicholls & Stanley, 1999) [11]. Papillomas affect the oral mucous membranes and skin of young and older dogs, respectively (Sundberg *et al.* 1994) [14]. It is characterized by a wart-like tuft of cauliflower-like tissues which when pigmented assumes a black colour (DeBey *et al.* 2001) [4]. Various treatment options available for canine papillomatosis include autogenous vaccination (Nicolls and Stanley, 1999) for prophylaxis as well as curative purpose, spontaneous regression and autoimmune therapy (Ghim *et al.*, 2000) [6], surgical excision, cryotherapy, crushing of warts to stimulate immunity, antibiotics like azithromycin (Yagghi *et al.*, 2008) [16], lithium antimony thiomalate (Dileepkumar and Ansari, 2012) [5], vincristine sulphate, thuja (Singh and Bhardwaj, 2014) [12] etc.

Case presentation

A seven month old German shepherd she dog, of weight 23 kg, was brought to the Teaching Veterinary Clinical Complex of the University. Cauliflower like growth or warts of varied sizes were present on oral mucosa since the pet was three months of age. Surgical excision was performed in past but the number of warts increased after surgery. The dog was treated previously with Thuja for two months with no improvement. Autohemotherapy was also tried but it was also unsuccessful. These warts were grayish-white in appearance. Based upon the clinical examination, it was diagnosed as a case of canine papillomatosis. The pet had marked halitosis. Blood was collected in EDTA for haematological examination. Treatment with inj. lithium antimony thiomalate (Anthiomalin®; each ml contains 60 mg of lithium antimony thiomalate) was started with a total dose of 0.5 ml i.m. and a total of six doses on alternate days were given with 0.5 ml increment on subsequent dosing. The pet showed fast recovery and there was complete regression of lesions after six doses of Anthiomalin.

Results and Discussion

Canine papillomatosis is self-limiting and regression of the verrucous processes takes place 4 to 8 weeks post onset but in few cases may remain and multiply (Calvert, 2003) [3]. The use of a specific and effective drug for treatment of canine papillomatosis is debatable. However, various drugs have been prescribed for treatment of canine papillomatosis with varied level of effectiveness. Some of these drugs include oral azithromycin, cimetidine, etretinate, human recombinant interferon- α 2a, intramuscular Propionibacterium acnes, topical application and/or subcutaneous injection of Thuja occidentalis has been used (in human, dog and cattle), intravenous taurididine and topical applications of 5- fluorouracil or imiquimod.

(Stokking *et al.*, 2004, Gourreau and Bendali, 2008, Biricik *et al.*, 2008, Lira *et al.*, 2012, Miller *et al.*, 2012, Umadevi and Umakanthan, 2013) [13, 7, 2, 15] However, the present case appeared refractory to conventional treatments. Treatment with inj. lithium antimony thiomalate (Anthiomaline; each ml contains 60 mg of lithium antimony thiomalate) was started with a total dose of 0.5 ml i.m. and a total of six doses on alternate days were given with 0.5 ml increment on

subsequent dosing. The pet showed fast recovery and there was complete regression of lesions after six doses of Anthiomaline (Figure 1, 2, 3). The observations in the present case are in accordance with the findings of Divya *et al.* (2015). Kavithaa *et al.* (2014) also reported that anthiomaline was effective in treating 81% papilloma cases in Jersey cattle as against only 70% with Thuja.

Table 1: Hematological picture at day of first and last dose of anthiomaline

Parameter	Day of 1 st dose	Day of 6 th dose
Hb (g/dl)	14.9	15.9
PCV (%)	50	52
TLC (thousand per cumm)	14.61	19.20
Neutrophils (%)	83	15
Lymphocytes (%)	15	78
Monocytes (%)	2	5
Eosinophils (%)	0	2



Fig 1: Day 1 showing numerous papilloma



Fig 2: After 5 doses, decreased number and size

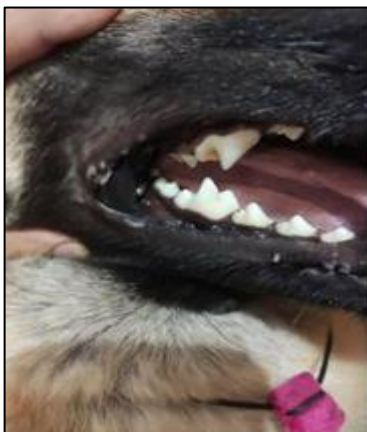


Fig 3: After 6 doses, completely recovered pet

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