

The Pharma Innovation

ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.03

TPI 2020; 9(4): 295-296

© 2020 TPI

www.thepharmajournal.com

Received: 07-02-2020

Accepted: 09-03-2020

Dr. G Suganya

M.V.Sc (VPH), Veterinary
Assistant Surgeon, Veterinary
Dispensary, Somasipadi,
Tiruvannamalai district, Animal
Husbandry Department, Tamil
Nadu, India

Dr. G Saranya

B.V.Sc & A.H, Veterinary
Assistant Surgeon, Veterinary
Dispensary, Kunichi, Tirupattur
district, Animal Husbandry
Department, Tamil Nadu, India

Treatment of cutaneous papillomatosis in a heifer: A case report



Dr. G Suganya and Dr. G Saranya

Abstract

A crossbred heifer calf around one year was presented to Veterinary Dispensary, Somasipadi in Tiruvannamalai district with the complaint of finger like projections over the skin surface in the medial aspect of hindlimb for past one week and the animal was not undergone any treatment before. The cow suspected with papillomatosis was treated with anthiomaline (lithium antimony thiomalate) at the dose rate of 7 ml deep intramuscularly on alternate days. We observed that the Anthiomaline injection was found to be effective in this case as no recurrence was observed during follow up of the same animal. It may be concluded that anthiomaline can be effectively used for treating cases of papilloma in case of bovines.

Keywords: Cutaneous bovine papillomatosis-heifer calf-anthiomaline

Introduction

Bovine papillomatosis is a viral disease of cattle characterized clinically by development of multiple benign tumours termed warts. The causative agent is an non-enveloped double stranded DNA viruses bovine i.e bovine papillomaviruses (BPVs) belonging to the *Papillomaviridae* family. Six different types of bovine papilloma virus have been characterized (BPV-1 to BPV-6). It is an infectious, contagious and neoplastic disease, characterized by the presence of multiple benign tumors (papillomas) that can regress spontaneously or progress to malignant neoplasms (Araldi *et al.* 2016)^[1]. It consists of hyper proliferative lesions affecting both cutaneous tissue and the mucosa. BPV can be found worldwide and usually spreads via direct or indirect contact between infected animals, virus enters through skin by cutaneous abrasions or through contact with contaminated areas such as milking machines, water dispensers, feeders, ropes or fences or transmitted by insects (Araldi *et al.* 2016)^[2]. It can be exhibited as benign nodular lesions, finger-like projections or cauliflower-like small growths on the skin arising from stratified squamous epithelium that may appear solitary or in multiples. It may occur in different parts of the body and the common sites for the development of cutaneous warts are head, eyelids, ears, neck, dewlap, brisket, shoulders and legs, occasionally on the back, para-genital region and along the lower line of the abdomen (Jana *et al.* 2013)^[3]. It may occur at any age, but it is seen more commonly in young animals of less than two years old and the tumors regress spontaneously due to the animal's immune response without significant scarring (Jelinek and Tachezy, 2005)^[4]. Extensive lesions lead to depreciation in both the aesthetic and economic value of the animal owing to loss of body condition, hide value, increased risk owing to trauma, consequent wounds, haemorrhages, myiasis, necrotic dermatitis, mastitis and interference in suckling, milking and coitus. These warts may regress spontaneously or occasionally persist, and, in the presence of additional critical genetic or environmental factors, can progress to cancer. In this case report, we discussed about the treatment of cutaneous papillomatosis of heifer calf under treatment with anthiomaline.

Material and Method

History

An heifer calf of non - descript breed was presented to the Veterinary Dispensary, Somasipadi in Tiruvannamalai district with the complaint of finger like projections over the skin surface in the medial aspect of hindlimb for past one week and the animal was not undergone any treatment before.

Corresponding Author:

Dr. G Suganya

M.V.Sc (VPH), Veterinary
Assistant Surgeon, Veterinary
Dispensary, Somasipadi,
Tiruvannamalai district, Animal
Husbandry Department, Tamil
Nadu, India



Fig 1: showing the cutaneous papillomatosis in the hindlimb

Clinical examination

On clinical examination body temperature, respiration rate, heart rate was in the normal range and filiform projection like growth were noticed in the medial aspect of the hindlimb.

Treatment

The treatment of the animals affected with papillomatosis was carried out by administration of anthiomaline (lithium antimony thiomalate) at the dose rate of 7 ml deep intramuscularly on alternate days. The above treatment was repeated for three times and the animal gets recovered. Supportive therapy included administration of injection of B-complex and Chlorpheniramine maleate.

Results and Discussion

Anthiomaline were found to be most effective therapy to cure cutaneous papillomatosis in heifer calf within three doses of injection with curative rate of 100% with compared to the other topical applications available and only remnant scars have been found on the skin. Kavithaa *et al.* (2014)^[5] found that autohaemotherapy were found to be most effective therapy to cure papillomatosis of udder and teat in Jersey cows within four weeks with a cure rate 92% followed by anthiomaline (81%), oral administration of thuja extract (70%) and topical application of thuja ointment (57%).our findings in this case were in accordance with those of Vikas *et al.* (2018) found that the therapeutic efficacy of anthiomaline in the treatment of bovine papillomatosis was 100%. Hence, anthiomaline can be effectively used for treating cases of cutaneous papilloma in bovines.

Acknowledgement

We thank the Animal Husbandry Department, Tamilnadu for providing the facilities available in the Veterinary dispensary for the clinical diagnosis and treatment of animals and it lays a vital role in sustaining rural livelihoods and improving the economy of rural population.

References

1. Araldi RP, Assaf SM, Carvalho RF, Caldas MA, Carvalho R *et al.* Papillomaviruses: a systematic review. Genet Mol Biol. 2016; 40:1-22.
2. Araldi RP, Melo TD, Neves A, Spadacci-Morena DD, Magnelli R *et al.* Hyperproliferative action of bovine papillomavirus: genetic and histopathological aspects. Genet Mol Res. 2015; 14:12942-12954.
3. Jana D, Mukherjee SK. Therapeutic management of Bovine Cutaneous papillomatosis With Ivermectin in farm Bred calf Crops of West Bengal, India. Exp Anim Med Res. 2013; 3:123-130.
4. Jelinek F, Tachezy R. Cutaneous papillomatosis in cattle. J Comp Pathol. 2005; 132:70-81.
5. Kavithaa NV, Vimal RN, Jiji RS. Papillomatosis in Jersey cows and its different medical treatment. International Journal of Science, Environment and Technology. 2014; 3(2):692-694.