

OCCURRENCE OF SCHISTOSOMA NASALE INFECTION IN CROSSBRED CATTLE: A CASE STUDY

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ABSTRACT

A 8 years old cross bred Holstein Friesian (H.F.) cow was presented at Arawali Veterinary College, Sikar with history of sneezing, ocular discharge, nasal discharge, difficulty in breathing with snoring sound, there were presence of cauliflower like growth on one side of the nasal septum. The disease was diagnosed as nasal schistosomiasis and was successfully treated with Anthiomaline (Lithium Antimony Thiomalate) @ 15 ml intramuscularly three doses at weekly intervals.

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KEY WORDS

Schistosoma nasale, cross H.F cow, Anthiomaline

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INTRODUCTION

Nasal schistosomiasis is caused by the blood fluke *Schistosoma nasale* adversely affects the health and production of domestic livestock in various parts of India. *S. nasale* is a species of digenetic trematode in the family Schistosomatidae. It was identified first in 1933 by Dr. M. Anant Narayanan Rao at Madras Veterinary College, Tamil Nadu, India. The freshwater snail *Indoplanorbis exustus* acts as intermediate host [1]. Affected cattle shows rhinitis, profuse mucopurulent nasal discharge manifested clinically by sneezing, dyspnoea and snoring. Chronic infections show proliferation of nasal epithelium as granuloma and small abscesses containing eggs.

CASE HISTORY AND OBSERVATION

A 8 years old cross bred Holstein Friesian cow was presented at the Teaching Veterinary Clinical Complex (T.V.C.C.) of Arawali Veterinary College, Sikar, Rajasthan with history of sneezing, ocular discharge, nasal discharge, difficulty in breathing with snoring sound. On clinical examination it was found that there was presence of cauliflower like growth on one side of the nasal septum. Laboratory examination of nasal mucous reveals the presence of boomerang shaped eggs of *Schistosoma nasalis*. On the basis of history, clinical signs and laboratory examination, disease was confirmed as Nasal Schistosomiasis.

TREATMENT AND DISCUSSION

Treatment started with Inj Anthiomaline (Lithium Antimony Thiomalate) @ 15 ml intramuscularly. The cow responded after first dose of Anthiomaline and there was reduction in the size of nasal granuloma. The Inj Anthiomaline @ 15 ml intramuscular was repeated after weekly interval. Further reduction in the size of nasal granuloma was recorded and snoring sound was also reduced to slight sound that was audible, animal was breathing normally. Then the third injection of Anthiomaline was given after one week, reports complete recovery

of the animal. Thus complete recovery of the animal was reported with three doses of Anthiomaline at weekly intervals.

Anthiomaline was the drug of choice.[2] Physical examination of animals revealed sneezing, thick mucus nasal discharge, congestion of nasal mucosa. The above findings are in conformation with Soulsby [3]. Antimony attached itself to sulphur atoms in trypanothione reductase (the putative enzyme targeted by antimonial compounds) which was used by the parasites. High incidence of schistosomiasis was seen in older animals as reported by Banerjee and Agrawal [4] and Sumanth et al. [5].

CONCLUSION

The present study reports on the successful treatment of clinical case of nasal schistosomiasis with the administration of three consecutive doses of Inj Anthiomaline (Lithium Antimony Thiomalte) @ 15 ml intramuscularly at regular weekly intervals.

CONFLICT OF INTEREST

There is no conflict of interest.

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FINANCIAL DISCLOSURE

None.

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