



Study on the anti – Nasal schistosomal activity of *Solanum xanthocarpum* in bovine

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ABSTRACT : Fourteen cattle, non-descript breeds differing in age and sex, were taken in this study. History revealed frequent shaking of head, sneezing, nasal bleeding and scratching of nostrils against hard objects. Clinical and parasitological examination confirmed the presence of *Schistosoma nasale* in the nostrils. Two animals kept as control group without treatment and remaining 12 were intra nasally given the extract juice of *Solanum xanthocarpum* 3 drops twice daily for 7 – 10 days. Control showed no recovery and the trial group was found 92 per cent effective on subsequent clinical and parasitological examinations.

KEY WORDS : Cattle, *S.nasale*, *S. xanthocarpum*

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INTRODUCTION

Nasal schistosomiasis caused by *Schistosoma nasale* is a severe degenerative condition of nasal cavity if not properly treated. In this paper is discussed the anti-nasal schistosomal activity of *Solanum xanthocarpum*.

Cattle of non-descript breed, aged between 1 to 4 years, 14 in numbers, presented for frequent shaking of head, sneezing, dyspnoea, nasal discharge with bleeding sometimes and scratching of nostrils against hard objects were presented. Clinical findings were snoring, cauliflower shaped nasal granulomas with profuse mucopurulent discharge and sometimes haemorrhagic. Parasitological examination of nasal washings revealed the presence of palanquin shaped eggs of *Schistosoma nasale* and confirmed as nasal schistosomiasis.

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In order to study the effectivity of *Solanum xanthocarpum* against nasal schistosomiasis, two cattle kept as control without treatment and the remaining 12 treated using *S. xanthocarpum*.

The trial group of 12 cattle were 3 drops intranasally administered with the extract juice of *S. xanthocarpum* twice daily for 7 – 10 days. Ten out of the 12 animals showed remarked decrease egg count and progressive regression of nasal granulomatous growths with cessation of clinical signs. Thus, found 92 per cent success rate.

Nasal schistosomiasis, caused by the blood fluke *Schistosoma nasale*, is a snail borne trematode infection of cattle and buffaloes. The nasal schistosomiasis is characterized by formation of granulomatous growth in the nasal mucosa resulting mucopurulent nasal discharge and partial closure of nasal passage producing snoring sound - snoring disease.

Praziquantel (25 mg/kg) is highly effective, although two treatments 3–5 week apart may be required. However, for practical and economic reasons, schistosomiasis in domestic stock is rarely treated (Merck Veterinary Manual, 2015).

Thus, in this paper is found an ethno-medicinal treatment which is easy, economical and effective to use.

The whole plant of *S.xanthocarpum* is a stomachic and anthelmintic (Alma, 1991) and Cheryll (2013), also cited that some *Solanum* sp. such as *solanum lycocarpum*, *S. incanum* posses anti-schistosomal property.

Considering the above properties and availability, *S. xanthocarpum*, its effectivity against nasal schistosomiasis in cattle was is found to be 92 per cent.

Summary :

Anti-nasal schistosomal action of *S. xanthocarpum* found successful in treating bovine nasal schistosomiasis.

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