

REDUCED EFFICACY OF OXYCLOZANIDE AGAINST AMPHISTOMES IN NATURALLY INFECTED SHEEP

N. Jeyathilakan, G. Radha, S.Gomathinayagam, K. Senthilvel and Lalitha John

*Department of Parasitology, Madras Veterinary College,
Tamil Nadu Veterinary and Animal Sciences University, Chennai-600 007, India*

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Amphistomiasis due to various species of family Paramphistomatidae is very common in Tamil Nadu (Balasubramaniam et. al., 1973; Lalitha and Anandan, 1986). Oxytoclozanide is a salicylanide compound commonly used as a flukicide in veterinary practice (Martin, 1997). The efficacy of this drug was evaluated by many workers against amphistomes of sheep in India. Chhabra et al. (1978) and Sahai et al. (1983) reported 92.02 and 100 % efficacy is oxytoclozanide, respectively against amphistomes of sheep. However, repeated and improper use of anthelmintics for the worm control programme may lead to development of resistance (Singh et al., 2002). Therefore, present trial was conducted to know the efficacy of oxytoclozanide against amphistomes of sheep.

Tamil Nadu. One hundred naturally amphistome infected animals were selected for this study. They were equally divided in treatment and control groups. Faecal samples were collected from the sheep and examined for the presence of amphistome ova and EPG using McMaster chamber. Animals having comparable egg count were selected for the trial. Treatment group was drenched with oxytoclozani (Neozide 3.4 % w/v suspension) at a dose rate of 15 mg/kg BW. The efficacy of the drug was monitored by faecal examination at 0, 7, 14 and 21 day post treatment and the epg was calculated by McMaster method. The efficacy of the drug was calculated on the basis of FECR percentage of treated and control group as per the guidelines of WAAVP (Powers et. al., 1982).

The trial was conducted in field flock of sheep at Vellancheri located near Chennai,

Table 1. Mean epg values of naturally infected sheep treated with Oxytoclozanide.

Animal	Group	Pre treatment epg values	Post treatment epg values				Percent efficacy
		0 day	7 th day	14 th day	21 st days		
Sheep	Treatment	764.67	222.22	146.66	125.92	83.53	
	Control	733.85	678.54	721.98	745.87		

The mean epg values of naturally infected sheep treated with oxclozanide is shown in Table 1. The result indicated that oxclozanide was 83.53 % effective on 21st day. The control group of sheep continued to show average egg counts as high as 745.87 on day 21 post medication. However, this efficacy is much lower than the earlier medication of Chhabra et al. (1978) and Shai et al. (1983). This reduced efficacy might be due to development of anthelmintic resistance as reported in GI nematode since the present drug is recommended for amphyistomiasis under field conditions and is being continuously used.

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