

Comparative Scanning Electron Microscopic Observations of Anthelmintic Effect of *Trigonella foenum-graecum* on *Paramphistomum cervi* in Buffalo

Authors : Kiran Roat, Bhanupriya Sanger, Gayatri Swarnakar

Abstract : Amphistomiasis disease is the main health problem throughout of the world and responsible for great economic losses to cattle industries, mostly to poor cattle farmers in developing countries. Among the rumen parasites, the *Paramphistomum cervi* were collected from the rumen of freshly slaughtered buffalo for the further treatment process. *Trigonella foenum-graecum* is commonly known as methi and fenugreek and their seeds are known for their therapeutic value. The present study was considered to evaluate in vitro efficacy of aqueous extract of *Trigonella foenum-graecum* on *P. cervi*. 130 mg/ml concentration of aqueous extract shows total mortality of *P. cervi* at 5 hours. The ultrastructural surface topography of untreated animal was compared with a treated animal by scanning electron microscope (SEM). The body of untreated *P. cervi* in conical shape, tegumental surface is highly ridged with transverse folds and present abundance number of papillae. Observations demonstrated that the body of treated *P. cervi* become shrunken & elongated. Treated parasite shows the deep breakage in tegument and the disappearance of tegumental folds & papillae. Severe blebs formations have been found. Above findings, it can be concluded that the seeds of *Trigonella foenum-graecum* can be used as an anthelmintic agent to eliminate *P. cervi* from the body of buffalo.

Keywords : *Paramphistomum cervi*, *Trigonella foenum-graecum*, scanning electron microscope, buffalo

Conference Title : ICPPDA 2017 : International Conference on Parasitology, Pharmacology and Domestic Animals

Conference Location : Melbourne, Australia

Conference Dates : February 02-03, 2017