

Cestocidal Activity of *Acacia caesia* stem bark on *Raillietina echinobothrida*

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ABSTRACT

The effects of the methanol extract of *Acacia caesia* Linnaeus (Mimosaceae) stem bark were examined on the avian gastrointestinal cestode, *Raillietina echinobothrida* Megnin. In vitro treatments of the cestodes with different concentrations, viz, 0.5, 1, 2, 5, 10, and 20 mg ml⁻¹, of the plant extract indicated that the plant extract caused dose-dependent paralytic and mortality effects similar to that of albendazole, with significant mortality ($P < 0.05$) when compared to the control. However, the plant extract showed significant lethal effect only at the higher concentrations such as 5, 10, and 20 mg ml⁻¹ while albendazole was effective at all concentrations tested. Scanning electron microscopy of the cestode treated with 20 mg ml⁻¹ of the plant extract showed profound morphological alterations which were the deliberate hallmark effects of anthelmintic drugs. Devastating obliteration of tegumental surface, focal erosion and degeneration of the microtriches of the proglottids, and distortion of suckers on the scolex were clearly discernible. The plant extract thus showed profound anthelmintic effects and apparently acted trans-tegmentally to cause morphological damages.

KEYWORDS

Acacia caesia . albendazole . anthelmintic . cestode . *Raillietina echinobothrida* . scanning electron microscopy . tegument

REFERENCES

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