

Scanning electron microscopy study of *Raillietina echinobothrida* Megnin, 1880 (Cestoda) and *Syphacia obvelata* Rudolphi, 1802 (Nematoda) exposed to *Cyperus compressus* (L.) (Cyperaceae) and its GC-MS study

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The roots of *Cyperus compressus* (Cyperaceae) have traditionally been used to treat intestinal helminthiasis in India. This study was designed to examine the abnormalities caused on *Raillietina echinobothrida* Megnin, 1880, and *Syphacia obvelata*, Rudolphi, 1802, on exposure to the root methanolic extract of *C. compressus*, using scanning electron microscopy. Worms were placed in extract concentration of 30mg/mL and on paralysis, worms were dehydrated in acetone grades and images were taken. The extract was then processed for GC-MS study to detect the compounds present in it. The images portrayed damaged microtriches in *R. echinobothrida* and loss of annulations and wrinkled cuticle were observed in *S. obvelata*. Compared to the damages caused by the reference drug, the results were milder. GC-MS study revealed 30 prominent peaks where 7-Methyl-Z-tetradecen-1-ol acetate, was the most abundant compound which was detected at retention time 20.48 and with a relative abundance of 60.49. Its efficacy could be contributed to these detected compounds in the extract.

**Keywords** Anthelmintic, *Cyperus compressus*, GC-MS, *Raillietina echinobothrida*, *Syphacia obvelata*