EFFECTS OF ACTIVE MOLLUSCICIDAL AGENTS OF COMMON SPICES ON BIOCHEMICAL PARAMETERS IN THE OVOTESTIS OF LYMNAEA ACUMINATA

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ABSTRACT
The effects of active molluscicidal components of Zingiber officinale (citral and [6]-gingerol, respectively) and Trachyspermum ammi (thymol) on total protein, free amino acids and nucleic acid levels, and phosphatase activities were studied in the ovotestis of L. acuminata. Sublethal exposure to these components caused significant alterations in these biochemical parameters. Maximum reduction in protein levels of ovotestis (35% of control) was observed in snails exposed for 96 hr to 80% of 24 hr LC

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of [6]-gingerol. Significant reduction in amino acid levels was observed in ovotestis of [6]-gingerol- and thymol-treated snails whereas a significant increase was observed in citral treated snails. Significant reduction in nucleic acid level and acid/alkaline phosphatase activity in ovotestis were observed in all three groups of treated snails. Withdrawal experiments showed that these changes were reversible.

REFERENCES


