

# MOLLUSCICIDAL EFFECT OF *EOMECON CHIONANTHA* ALKALOIDS AGAINST *ONCOMELANIA HUPENSIS* SNAILS

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**Abstract.** The molluscicidal effects of *Eomecon chionantha* alkaloids (ECA) against *Oncomelania hupensis* snails were determined by immersion method. The molluscicidal effect was positively related to ECA concentration, immersion time and temperature of the immersion solution. The mortality of the snails reached 100% by 72 hours in ECA at a concentration of 2.5 mg/l at 25°C. The alanine aminotransferase (ALT) level of liver cells treated with ECA was higher than controls at 24 and 36 hours (57.7 and 60.3 U/l versus 39.2 and 49.2 U/l, respectively) but the level decreased at 48-72 hours after treatment. The decrease points to the toxic effect of ECA against liver cells. After ECA treatment, the liver cells were edematous with swollen or disintegrating nuclei; they were enlarged and had vacuolated rER; they had dilated and vesiculated mitochondria with broken crests further indicating a hepatotoxic effect of ECA in *O. hupensis* snails. ECA has a molluscicidal effect that may be of practical use in the field to control *O. hupensis* snails.

**Keywords:** *Oncomelania hupensis* snail; alanine aminotransferase, *Eomecon chionantha* alkaloids, liver, plant molluscicide, ultrastructure

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