

Echinococcus in Eastern Cape Province, South Africa

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Abstract : Cystic echinococcosis (CE), caused by *Echinococcus granulosus* is an important parasitic infection in livestock worldwide, with severe zoonotic potential. It is important to understand the variability of *Echinococcus granulosus*, as genotype variations may influence lifecycle patterns, development rate, and transmission. Cystic *Echinococcus* samples were collected from domestic animals in Eastern Cape Province, South Africa. A molecular study was performed on 14 hydatid cysts obtained from caprine, ovine and bovine livers in order to determine the *Echinococcus granulosus* strain present in these hosts. The sequencing of the mitochondrial cytochrome C oxidase subunit I (coxI) gene of the hydatid cysts produced sequences of 400 bp for each sample analysed. These sequences were aligned with those present in GenBank and a phylogenetic tree was constructed. Based on coxI genotype the isolates could be grouped into *E. granulosus sensu stricto*. The findings of the study represent a pilot molecular study on *Echinococcus* from domestic animals undertaken in South Africa.

Keywords : *Echinococcus granulosus*, genotypes, livestock, South Africa

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