## 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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