

# Molecular epidemiology of cystic echinococcosis: Genotypic characterization in humans and different livestock [Epidemiología molecular de la equinococosis quística: Caracterización genotípica en humanos y diferentes animales]

Manterola C.

Otzen T.

*Echinococcus Granulosus* (EG) is the major cause of cystic echinococcosis in humans and livestock in the world. In Chile is a zoonosis of great importance. The most frequently affected geographic areas are the Regions of Aysén, Los Rios, Los Lagos, Coquimbo and the Araucanía. Hence, it was discovered that in endemic areas of hydatidosis there could be several strains and genotypes of EG. In addition, there is evidence that some strains and genotypes are more infectious for human beings than others. This interesting phenomenon of the biology of EG has been studied using molecular biology techniques based on polymerase chain reaction (PCR) and DNA sequence analysis, which has made it possible to characterize the cestode species complex called EG sensu lato (s l) as being comprised of EG sensu stricto (s.s.) (Genotypes G1-G3), *E. equinus* (G4), *E. ortleppi* (G5) and *E. canadensis* (G6-G10), which present an important phenotypic variation detectable in characteristics of the biological cycle, specificity of the intermediate host, pattern of development, pathogenicity, antigenicity, transmission dynamics and, consequently, in the measures needed to control the disease. The aim of this manuscript is to describe the different genotypes of EG described in humans and different livestock host reported in the literature. © 2016, Universidad de la Frontera. All rights reserved.

Cytochrome c oxidase subunit I

*Echinococcus granulosus*

Genotypes

PCR-RAPD