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Genetic Diversity of Echinococcus granlosus isolated from farm animals by using nuclear and mitochondrial genetic loci.

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Abstract : Determination of the genotypes *of Echinococcus granulosus* (*E.granulosus*) in farm animals of Egypt and Italy is the purpose of our study. Our endeavor describe the rapid diagnosis and characterization of *E. granulosus* genotypes by a specific and sensitive PCR, semi nested PCR system. Characterization of genotypes G1 for sheep , goats and cattle while G6 for camel. The Partial nucleotide sequences (570 pb) of CO1 and ND1 (600 bp) of the *E. granulosus* obtained from sheep, goats, cattle and camel were aligned with the reference sequences of the genotype; G1- G6. All the examined isolates products sequences are variable homologous to the other nucleotide sequence of *E. granulosus* isolates from different countries. GeneBank sequences accession No. for COX1 are KX379147, KX379146, KX379145 and KX 379148 while accession NO. for ND1 are KX298250, KX298249, KX298248 and KX379144 of cattle, sheep, goat and camel respectively. Current resulted data of the present attempt indicate some epidemiological features and molecular characteristics of *E. granulosus* in Egyptian and Italian farm animals.

Keywords: Genetic , Echinococcus, nuclear , mitochondrial and genotype.

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