

International publications of Damanhour University

Papers published Internationally by Damanhour University Staff Members of Different Departments

(10)

El-Bahy, N. M., et al. (2017). "New approach to molecular characterization of *Paramphistomum cervi* and *Carmyerius gregarius* and comparative analyses with selected trematodes." Parasitol Res 116(5): 1417-1422.

The two ruminant parasites, *Paramphistomum cervi* and *Carmyerius gregarius*, were collected from fresh-slaughtered native cattle at local abattoirs in Sadat district, Menoufia province and identified morphologically, then molecularly by sequencing the nucleotides of 18S ribosomal RNA gene (18S rRNA). The nucleotide sequences of the two isolates were 456 (*P. cervi*) and 401 bases for (*C. gregarius*). The data were used along with those of several other helminth species from the GenBank to identify these two species genetically. The nucleotide sequences were aligned using multiple sequence alignments of nucleotides by Clustal W 12.1 V and construct their relationship. Neighbor-joining analytical method was used showing sister relationship between *C. gregarius* from Sadat district and *Gastrodiscoides hominis* (EF027096) with relative identity of (98%) due to the presence of single nucleotides polymorphisms (SNPs) in the form of indels as nine nucleotides positions. But when clustering of *P. cervi* Sadat isolate with *Paramphistomoidea* sp. S4 isolate P5 (GU735643), this relationship shows complete identity (99%) between them. The homology and diversity was done using Bayesian analyses in MrBayes v3.1. This work will give a useful guide for other researchers for the molecular taxonomic position of *Paramphistomatidae* spp. in Sadat district among the different species around the world.