GENETIC INSIGHTS INTO NEOTROPICAL *Echinococcus* SPECIES: AN OVERVIEW OF AVAILABLE DATA

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This study describes the genetic data available for neotropical echinococcosis (NE) species in sequence databases. The terms "*Echinococcus vogeli*" and "*Echinococcus oligarthrus*" were searched in GenBank (GB) and WormBase ParaSite (WBPS) databases, and the retrieved DNA sequence information (length, region, coding status, genome, and publication) was compiled into a spreadsheet and analyzed using Excel 365 (Microsoft, USA). *Echinococcus oligarthrus* has a complete genome (PRJEB31222) from Argentina in WBPS and 45 sequences in GB, including 1 mitogenome (NC_009461) from Panama, 5 complete CDS (18S rRNA*, ef1a,* 5.8S rRNA and ITS1: Panama; and *atp*6: Brazil), and 39 partial CDS (genomic: *pold, pepck, rpb2, ef1a, elp, AgB1*; mitochondrion: *nad*1*, atp*6*, cox*1). *Echinococcus vogeli* lacks a complete genome, but GB contains 86 sequences: 1 mitogenome (NC_009462) from Colombia, 2 complete CDS for *atp*6 from South America (unknown country), and 83 partial CDS (genomic: 18S rRNA*, pold, pepck, rpb2, ef1a, eg95, elp,* 5.8S rRNA and ITS1*, AgB1, hbx2, AgB, act II, mdh*; mitochondrion: *cox1, atp*6*, nad*1*,* 12S rRNA). In addition, we compared *E. vogeli* and *E. oligarthrus* mitogenomes using BLAST/NCBI, revealing 86.18% genetic identity with 100% coverage. The data is consistent with previous interspecific analyses of *Echinococcus* spp. based on mtDNA (~85%). Intraspecific analysis based on mitogenomes from cystic echinococcosis species has already shown significant genetic diversity, even among isolates from the same country. So, expanding genetic studies, including additional whole-mitogenome sequencing, is crucial to improve species identification, clarify epidemiological roles, and support control strategies for NE. In this context, the study supports the necessity of projects focused on enhancing genetic information of these species in Brazil, even though there are difficulties of obtaining samples, due to the parasitic nature of *E. vogeli* and *E. oligarthrus*.

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Keywords: Genetic data, *Echinococcus oligarthrus*; *Echinococcus vogeli*.