

## ***Taenia serialis* infection in the muscle tissue of a sheep: A case study from an industrial slaughterhouse**

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### **Abstract**

*Taenia serialis* is a parasitic tapeworm typically affecting small mammals, with its presence in sheep being rare and poorly documented. While *T. serialis* is known to cause neurological *Coenurosis* in sheep, this pathogen has not been commonly associated with livestock, particularly in muscle tissue. This case report aimed to describe a rare instance of *T. serialis* infection in the muscle tissue of a sheep, highlight the diagnostic methods used, and discuss the implications of parasitic infections in industrial slaughterhouse settings. A 2.5-year-old ewe, showing no clinical signs, was slaughtered at an industrial slaughterhouse in Sanandaj city. During post-mortem examination, multiple cysts were found in the muscle tissue. DNA extraction and PCR analysis for *cox1* gene confirmed the presence of *T. serialis*, which was further validated through sequencing and phylogenetic analysis. This case represents an unusual infection of *T. serialis* in sheep muscle tissue. The absence of clinical symptoms prior to slaughter highlights the importance of post-mortem examinations and molecular diagnostics in detecting parasitic infections. The findings suggest a need for further research on the prevalence and impact of *T. serialis* in livestock.

**Key words:** *Taenia serialis*, Coenurosis, Sheep, Industrial slaughterhouse

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