

Entamoeba muris

Prevalence

- Between 5-55% amongst laboratory and wild mouse populations
- Common in caecum, less common in colon

Significance

- Has not been reported to interfere with experimental design or reproducibility
- Models of invasive amoebiasis (hepatic abscess in humans most common) can be recreated by intrahepatic inoculation of trophozoites into SCID mice

Disease

- Trophozoites are commensal inhabitants of the caecum and anterior colon
- Related to more pathogenic *E. histolytica* of humans and *E. invadens* of reptiles
- Disease due to presence have not been reported – likely that it lacks virulence factors characterized in *E. histolytica* (in humans)

Transmission

Faecal-oral - cysts excreted in faeces become available for ingestion and infection in the next host.

Isolation and Diagnosis

- Wet preparation examination of caecum and colon by light microscopy – pleomorphic with a pseudopod (distinct from the endoplasm) and trailing uropod (account for amoeboid motion)
- Trophozoites are round or ovoid in histologic sections of the mucus layer of the caecum and have a single nucleus

Prevention and Control

Rederived and barrier-maintained mice are free of *E. muris*.

Reading

- S.W. Barthold, S.M. Griffey, & D.H. Percy. Pathology of Laboratory Rodents and Rabbits (Fourth Edition), 2016
- J.G. Fox, S.W. Barthold, M.T. Davisson, C.E. Newcomer, F.W. Quimby, A.L. Smith. The Mouse in Biomedical Research (Second Edition), 2007
- D.G. Baker. Flynn's Parasites of Laboratory Animals (Second Edition), 2007