

## ***Balantidium* (*Balantioides coli*, *Balantidium caviae*)**

Family: *Balantidiidae*

### **Prevalence**

- Found in guinea pigs as a cyst-forming ciliate protozoan.

### **Significance**

- *B.caviae* is a ciliated protozoan having a micro- and macronucleus and is usually non-pathogenic in guinea pigs
- Pigs are the primary reservoir host of *Balantioides coli* which can infect humans.

### **Disease**

- *B.caviae* is usually non-pathogenic in guinea pigs
- Can penetrate through submucosa under immunocompromised health conditions.
- Opportunistic pathogen (secondary agent of disease)

### **Transmission**

- Faecal-oral route
  - Cyst-contaminated food and water
- Infected animals can act as asymptomatic carriers. May be a commensal protozoan.

### **Isolation and Diagnosis**

- Microscopic diagnosis through observing the trophozoites in a wet preparation slide of caecal contents.
- The protozoa excysts in small and large intestine and replicates through binary fission in lumen of large intestine.
- *B.caviae* can also be detected in caecum or colon histologic sections

### **Species**

- *Balantidium coli*- Humans and pigs
- *Balantidium caviae*- Guinea pigs and rats

### **Screening**

- Microscopy by preparing a wet preparation motility slide (faecal smear) of caecal contents.

### **Duration**

- Mature cysts which are infective are found in faeces and could be viable in the environment for up to 10 days.
- Trophozoites may disappear soon after the stool is passed.

### **Prevention and Control**

- Hygiene (faecal-oral transmission)
- Treatment with tetracycline in other species

## Reading

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**Jones KR, Garcia GW.** 2019 Review: Endoparasites of domesticated animals that originated in the Neo-tropics (New World Tropics). Veterinary Sciences 6 (24).

**Rees CW.** 1927. *Balantidia* from pigs and guinea-pigs: their viability, cyst production and cultivation. Science. 66(1699):89-91.