

# **Clostridium piliforme (former Bacillus piliformis)**

## **Host species**

- all laboratory animals, other mammals (Tyzzer, 1917; Fries, 1977)
- one case of human infection (Smith et al. 1996)

## **Properties**

- spores are highly resistant to formaline
- relatively sensitive to heat and certain chemical disinfectants (Itoh et al. 1987)

## **Susceptibility**

- depending on genetic factors of the host (Hansen et al. 1990; Waggle et al. 1981)
- antigenetic differences among isolates of bacteria (Biovin et al. 1993; Franklin et al. 1994)

## **Organotropism**

- liver
- heart

## **Clinical disease and pathology**

- Anorexia and diarrhea of different severity
- hypertrophy and inflammation of the ileum
- focal necrosis in the liver and/or heart possible (Fries, 1977)
- mesenteric lymphadenopathy
- brain lesions in experimentally infected *Myomys albicaudatus* (Waggle et al. 1986)

## **Morbidity and mortality**

- inapparent infection, high mortality possible (breeding colonies)

- susceptibility to infection seems to depend on genetic factors of the host (Hansen et al. 1990; Waggle et al. 1981)
- isolates of different origin show heterogeneity and host specificity (Franklin et al. 1994)
- different strains of *Cl. piliforme* are likely to exist (Boivin et al. 1993)

## Interference with research

### Infectiology

- lower susceptibility to experimental arthritis caused by *Y. enterocolitica* (Gripenberg et al. 1993)

## Notice

- *Clostridium piliforme* is an obligate intracellular parasite forming spores. It does not grow on cell-free media. Cultivation in cell lines and embryonated eggs is possible (Spencer et al. 1990, Riley et al. 1990)
- Diagnosis with IFA (Fries, 1977), ELISA and Western blot (Motzel et al. 1991), PCR (Duncan et al. 1993; Goto et al. 1994)

## References

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