

Actinobacillus

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Actinobacillus spp. are bacteria belonging to the family *Pasteurellaceae* (this further includes, for example, genera *Haemophilus* a *Pasteurella*).

Morphology

It is about **gram-negative, facultatively anaerobic immobile and non-sporulating rods of pleomorphic shape**, sometimes referred to as stick-like. They are often protected by a case. They can occur as sticks or cocc. In media with a higher content of glucose or maltose they form fibers.

Cultivation

Actinobacillus is **cultivation demanding** bacteria, we inoculate it on chocolate or blood agar in an atmosphere with 5% CO₂. On solid media it forms star-shaped colonies which grow into agar, in broths we observe growth in small granules.

Occurrence

Actinobacillus spp. we find as **commensal and parasitic flora** mucosal tissue surfaces in humans and animals. Clinically significant are *Actinobacillus ureae* and *Actinobacillus hominis*, which are found only in humans and can be the etiological cause of airway inflammation. Other species like *Actinobacillus equuli*, *Actinobacillus lingieresii* or *Actinobacillus suis* are animal pathogens that can be transmitted to humans by biting and then cause purulent infections of these wounds.

Previously ***Actinobacillus actinomycetemcomitans*** was also included in this genus, however today is ranked among the hemophiles (*Haemophilus actinomycetemcomitans*).

“Recent studies have shown phylogenetic similarity with *Haemophilus aphrophilus*, *Haemophilus paraphrophilus* and *Haemophilus segnis*, as a result of these facts it has been proposed to include these bacteria together with *Actinobacillus actinomycetemcomitans* in the new genus *Aggregatibacter*”^[1]

Therapy

Except penicillin, for treatment can be used most of beta-lactam antibiotics or aminoglycosides or fluoroquinolones.

Links

External links

- Actinobacillus (English Wikipedia)
- Actinobacillus actinomycetemcomitans (English Wikipedia)

Reference

- NØRSKOV-LAURITSEN, Niels – KILIAN, Mogens. Reclassification of *Actinobacillus actinomycetemcomitans*, *Haemophilus aphrophilus*, *Haemophilus paraphrophilus* and *Haemophilus segnis* as *Aggregatibacter actinomycetemcomitans* gen. nov., comb. nov., *Aggregatibacter aphrophilus* comb. nov. and *Aggregatibacter segnis* comb. nov., and emended description of *Aggregatibacter aphrophilus* to include V factor-dependent and V factor-independent isolates. *Int J Syst Evol Microbiol* [online]. 2006, vol. 56, no. Pt 9, p. 2135-46, Available from <<https://www.ncbi.nlm.nih.gov/pubmed/16957111>>. ISSN 1466-5026.

Bibliography

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- VOTAVA, Miroslav, et al. *Lékařská mikrobiologie speciální*. 1. edition. Brno : Neptun, 2003. 495 pp. ISBN 80-902896-6-5.

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