

Chlamydia trachomatis

Chlamydia trachomatis belongs to the genus *Chlamydia*. The superior class *Chlamydiae* is a special class of bacteria: they are strictly intracellular parasites, they resemble viruses in their life cycle, they approach gram negative bacteria by building a wall . They are difficult to cultivate in tissue cultures, immobile, spherical.

Induced diseases

- urogenital sexually transmitted infections
- trachoma
- lymphogranuloma venereum
- newborn infections

Growth cycle characteristics _ edit source]

During the growth cycle, chlamydia occurs in two forms:

- *elementary body* (EB) - infectious form, diameter about 0.3 µm; it has a rigid wall without muramic acid, its main component is the outer membrane protein, it contains other proteins and a lipopolysaccharide; EB is not very resistant to drying, temperatures above 50 ° C, common disinfection
- *reticulate body* (RB) - diameter 0.6–1 µm; it is metabolically active but not self-sufficient: it utilizes the metabolism of the host cell to produce ATP and other compounds

The elementary body penetrates the host cell in a process similar to endocytosis. In the cytoplasm or cytoplasmic vacuole, it changes into a reticular body. RBs multiply in the cell by binary division, then they pass back to EB. After 48-72 hours, the cell lyses and the bodies are released.

Chlamydia trachomatis occurs almost exclusively in humans. We distinguish a number of serovars according to the properties of membrane proteins.

Identification _ _ _ edit source]

Correct collection is essential for the diagnosis of chlamydial infections: vigorous abrasion of the affected mucosa (urethral, cervical, conjunctiva) in order to remove as many epithelial cells containing chlamydia as possible. This is followed by antigen detection, immunofluorescence imaging of the bodies as cytoplasmic inclusions or identification by PCR. Microscopic detection of bacteria is possible after staining the sample with iodine, Lugol's solution or according to Giemsa-Romanovsky .

Links

Related Articles _ _ edit source]

- Chlamydial infections of genitals
- Chlamydial pneumonia

External links _ _ edit source]

- Chlamydia (Czech wikipedia)

References _ _ _ edit source]

- JULÁK, Jaroslav. *Introduction to medical bacteriology*. 1st edition. Karolinum, 2006. ISBN 80-246-1270-4 .

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