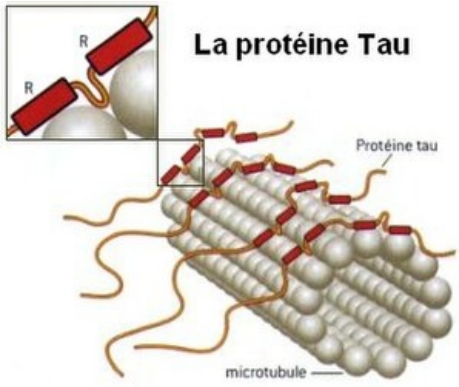
Tau protein

The protein τ (*τ-protein, tubulin associated unit*) is a protein that plays an important role in the development of Alzheimer's disease. It is found physiologically in neurons where it stabilizes microtubules. It is important for the cytoskeleton of neurons and the provision of axonal transport.

Hyperphosphorylation of the τ protein leads to the formation of **insoluble aggregates**, so-called *tangles* or *balls*. Aggregates cause microtubule collapse, axonal transport disorders. Gradually, neuronal functions fail. The tangles can be detected immunohistochemically or they can be impregnated with silver salts and observed under a microscope. Pathological inclusions of the τ protein can be observed in so-called **tauopathies**, which include, for example, some types of frontotemporal lobar degeneration or the already mentioned Alzheimer's disease.



Protein τ

Links

Related Articles

- Alzheimer's disease
- Amyloidosis
- Frontotemporal lobar degeneration

Used literature

- ZÁMEČNÍK, Josef, et al. *Patologie III.* 1. vydání. Praha : Nakladatelství LD, s.r.o. - PRAGER PUBLISHING, 2019. ISBN 978-80-270-6457-1.