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Ultrastructural and biochemical features of cerebral microvessels of adult rat subjected to a low dose of silver nanoparticles.

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Abstract

The widespread use of silver nanoparticles (AgNPs) in medicine and in multiple commercial products has motivated researchers to investigate their potentially hazardous effects in organisms. Since AgNPs may easily enter the brain through the blood-brain barrier (BBB), characterization of their interactions with cellular components of the neurovascular unit (NVU) is of particular importance. Therefore, in an animal model of prolonged low-dose exposure, we investigate the extent and mechanisms of influence of AgNPs on cerebral microvessels. Adult rats were treated orally with small (10 nm) AgNPs in a dose of 0.2 mg/kg b.w. over a 2-week period. A silver citrate-exposed group was established as a positive

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