Abstract


[Effect of fluoride-arsenic exposure on the neurobehavioral development of rats offspring].

[Article in Chinese]

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Abstract

In order to explain the effects of fluoride-arsenic exposure on the neurobehavioral development of rats, a two generations-one nest reproductive test was used. Wistar rats were exposed to fluoride and arsenic for two generations. The results demonstrated that: with the increasing concentrations of fluoride and arsenic, the positive rates of early physiological development and nerve reflex were decreased obviously, and the abilities of learning and memory of the offspring were decreased, the swimming and enduring anoxia time gradually shortened. The pathological changes of brain under electron microscope were as follows: decreased number of nerve cells, irregular cell nucleus, organellae degeneration, and obvious decreased number of synapses. It was demonstrated that fluoride-arsenic displayed distinct damage on the nerve system of the offspring.

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