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Effect of Aluminum-Containing Antacid on Sperm Parameters And testicular Structure in Male Rats

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Abstract: Aluminum compounds are used in many pharmaceuticals. Antacid as aluminum hydroxide [Al $(OH)_3$] was tested for its effects on the sperm parameters and testis of rats at dosage of 18 mg/kg/day. Mature male rats were treated orally for 30 days. The sperm parameters in epididymis were counted and testes were examined. Results obtained showed that $Al(OH)_3$ caused significant ($P < 0.05$) decrease in sperm concentration, sperm motility percent and sperm viability percent compared to the control group, while abnormal sperm morphology percent were increased. In addition, the exposure of rats to $Al(OH)_3$ caused obvious histopathological changes in the testes. It can be concluded that high antacid intake for long period can be effective on reproductive system.

Keywords: Antacid, $Al(OH)_3$, Sperm parameters, Epididymis, Testis, Rat.

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