

The impact of subchronic intoxication with lead and cadmium oxides nanoparticles on spermatogenesis in rats

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The experiment was conducted on the outbred male rats receiving repeated intraperitoneal injections with suspensions of PbO and CdO nanoparticles 3 times a week, for 6 weeks. After the exposure was over, the semen cytological analysis was performed. It revealed an increased percentage of spermatozoa with morphological defects. The type of combined spermatotoxic effects of the nanoparticles was described mathematically. We've shown also that the studied combined toxic effect of PbO and CdO nanoparticles could be attenuated by the background administration of bio-protective agents.