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Zinc oxide nanoparticales induced histological, histochemical and genotoxicity effects in kidney of adult male rabbits

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Our aim was to study the histological, histochemical and genotoxic e ects of ZnO NPs on the kidney of adult male rabbits. Fi een adult male rabbits were divided equally into three groups. Group I was the control group; group II was the low dose treated group, in which rabbits were intraperitonial injected with ZnO NPs (100 mg/kg/day) for 14 days; and in group III was the high dose treated group, rabbits were injected intra peritonially with ZnO NPs (250 mg/kg/day) for 14 day. At the end of the experiment, specimens from the kidney were taken and stained by H&E, PAS and Masson trichome stains. Also bone marrow were isolated for ow cytometry to study genotoxicy. ZnO NPs was nephrotoxic and led to prominent histopathological changes in the kidney. ere were destructions of the renal tubules, in form of loss of brush border, vacuolation of cytoplasm and intratubular protein depositions. Also there was interstitial in ltration of in ammatory cells. e renal corpuscles were dilated and congested. ere was increase in apoptotic cell rate of bone marrow samples and showed greater and diste o

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