Effect of bisphenol A on histological structure of testis and prostate in rat

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Abstract

Background&Objective: Bisphenol A (BPA) is a xenobiotic estrogenic compound that are a monomer of some plastics (poly carbonate and epoxy resin) that are widely used in dental sealant, dishes and tableware. This compound has suspected to have estrogenic effects on reproductive system and related to endocrine disrupting chemicals. In this present study we investigated possible low dose effects of BPA on testis weight and structure and prostate weight.

Materials&Methods: Male wistar rats (12-13 week old) were administrated a daily intra peritoneal 10µg/kgbw/day, 50µg/kgbw/day, 100µg/kgbw/day dose of BPA for6 and 12 days and one day after last injection testis and prostate weighted and histological section of testes prepared(5 micrometer) and stained by H&E and weigert hematoxilin . All data were expressed as means±SE. two-way ANOVA and chi-quire was performed.

Results: in compare with control group, testis and prostate weight of dose groups were decreased. Disruptions of epithelial layer cells of semniferous tubules were detected.

Conclusion: The present study showed that BPA at low doses affects histological structure and weight of testis and prostate, in the adult wistar rat.

Key Words: Bisphenol A- Low dose- rat- Testis