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HISTOPATHOLOGICAL EFFECTS OF ACUTE AND CHRONIC DOSES OF CADMIUM ON TESTES OF ALBINO MICE

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ABSTRACT – The present study has been undertaken to find out dose and time dependent toxic effects of cadmium (Cd) on testes of albino mice. Male albino mice weighing 20-24g were divided into three groups. In first group, mice were kept as control. In second group, animals were administered with single dose of 2mg/kg body weight (b.w) cadmium chloride ($CdCl_2$) intraperitoneally and autopsied at the intervals of 1,7,15 and 30 days post treatment. In third group animals were injected daily with $CdCl_2$ at a dose of 0.1mg/kg b.w intraperitoneally for 15 and 30 days and were sacrificed on 15th and 30th day post treatment. After autopsies, testes were excised, processed and slides were prepared by microtomy and were studied. The histopathological effects observed in testes were in the form of oedema in intertubular spaces, hypertrophy and clumping of seminiferous tubules, degeneration of germinal layers in seminiferous tubules, reduced number of spermatogonia, disturbed mitotic activity, plenty of giant cells, pyknotic and karyolitic nuclei. In the present study, maximum damage was observed in mice treated with chronic dose of cadmium.

Key words: Cadmium, histopathology, testes.