Original Article

Effects of Crude Onion Extract on Murine Testis

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Abstract

Introduction: Ancestral beliefs have tied onion consumption and its medicinal properties to increases in sexual desire. The present study tries to put this old belief to test. Therefore, this study has explored the effects of oral consumption of onion extract on the reproductive activity and testicular structure of adult male mice.

Materials & Methods: In this study, twenty-four 40-day old male Balb/C mice were randomly divided into two experimental and control groups. The experimental group received daily doses of onion (Allium cepa) extract (1*ml*/100*gr*/B.W.) for 10 days. The controls received the same volume of normal saline. At the end of the study, all the animals were anesthetized and scarified by cervical dislocation and their testes were harvested for histological study. For statistical analysis, t-tests were used to compare the means of the two groups while the significance level was set at $p<0.05$.

Results: The mean internal diameter of seminiferous tubules showed a significant increase in the experimental ($56.32\pm1.42\mu m$, $p<0.005$) relative to the control group (31.27 ± 3.16), whereas their mean external diameters did not show any significant difference. In addition, proliferation of spermatogonial cells and spermatocytes I and II increased significantly in the experimental group (264 ± 14.11, $p<0.0005$).

Conclusion: It seems that administration of onion extract affects both structure and proliferation of cells in tubules and enhances spermatogenesis in the murine.

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