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Inhibition of spermatogenesis with the treatment of 50% methanolic extract of *Maytenus emarginata* leaves in Albino rats

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Since population explosion threatens to human resources contraceptives used to check population. Due to drawbacks and side effects of contraceptives, Scientists are still trying to search a new economic, reversibly effective and safe contraceptive from plants. Many plants have been explored for their fertility regulating properties around the world including India and China in search to discover a male contraceptive agent because humans depend on plant products as sources of herbal therapeutic agents without causing any side effects. The present study was planned to evaluate antifertility and reversible contraceptive activity, therefore, 50% methanolic extracts of *Maytenus emarginata* leaves was prepared according WHO guidelines and administered orally at the dose of 50, 100, 200 mg/kg/body wt/day for 60 days to develop an orally effective and reversible male contraceptive. Results of the present study reveal a significant decline in the sperms motility and density of extract treated rats as compared to control. The weight of seminal vesicles and testes was significant decreased in rats followed extract treatment suggests anti-androgenic effects in rats. Proteins, ascorbic acid, cholesterol and fructose contents in testis and sex accessory reproductive organs, as well as FSH, Testosterone hormones levels were decreased in rats treated with the extract. Histological observation of testes showed degenerative changes in spermatogenesis in the lumen of seminiferous tubules, reduced sperm number might be due to inhibition of spermatogenesis caused reduction of fertility in extract treated rats. It can be concluded that oral treatment of 50% methanolic extract of *Maytenus emarginata* decreased fertility of male rats might be due to the decreased level of proteins, fructose and hormones.

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