

عنوان مقاله:

Effect of Palm Pollen and Pomegranate Peel Supplementation on Sperm Development in Male Rabbits

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خلاصه مقاله:

The use of plants, plant extracts, and folk remedies for the treatment of human diseases has been known as traditional medicine. It is approved that the use of herbal medicine dates far back to ۶۰,۰۰۰ years ago in Iraq. This study aimed to investigate the possible effects of pomegranate and palm pollen, as two powerful herbal remedies with antioxidant, anti-inflammatory, and anti-bacterial effects, on fertility in the male rabbits. A total of ۱۵ healthy New Zealand White male adult rabbits were randomly assigned to three groups (n=۵ in each group). Group A: ۵ rabbits did not receive herbal treatment (control group). Group B: ۵ rabbits were treated with palm pollen at a dose of ۲ g by oral gavage daily. Group C: ۵ rabbits were treated with pomegranate peel (۲ g) treated by oral gavage daily. All animals were euthanized ۹۰ days after the beginning of the experiment. Following the euthanasia, the testis was removed. For sperm recovery, the epididymis was dissected from the testicles and the tail of the epididymis was minced in the sperm washing medium and incubated for ۱۵ min in an atmosphere of humidified ۵% CO<sub>2</sub>, ۹۵% O<sub>2</sub>. The samples were evaluated by using computerized semen analyzer apparatus (CASA). After ۹۰ days, the treated groups with palm pollen and pomegranate peel (groups B and C) demonstrated a significant increase in the sperm concentration, compared to group (A). Moreover, the recorded data revealed that the sperm concentration in group C was significantly higher than that in group B. The study indicated that the total sperm motility was increased significantly in groups B and C, as compared to that in the control group, while the total sperm motility in group C increased significantly, compared to group B. The histological evolutions signified that in the control group, the epithelial of seminiferous tubules were at different stages of spermatogenesis, the spermatocytogenesis (primary and secondary) with the spermatogenesis (spermatids) were found in a cluster at the cavity of the tubule. Furthermore, the results of histological evaluations in groups B and C were distinguished by a significant augmentation of the seminiferous tubules with primary and secondary spermatocytes, as well as some degrees of spermatogenesis (round spermatids), compared to group A. Moreover, increased angiogenesis was observed in groups B and C. In conclusion, the results pointed out that herbal remedies have a significant effects in the treatment of reproductive disorders.

کلمات کلیدی:

herbal medicine, Male Reproduction, Testicle

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