

**EFFECT OF PROPOLIS ON SPERMATOGENIC CELLS NUMBER AND  
DIAMETER OF SEMINIFEROUS TUBULES IN MALE MICE (*Mus  
musculus*)**

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**ABSTRACT**

The medicinal properties of propolis have been known over the years. The present research aimed to determine the effect of propolis in increasing spermatogenic cells number and seminiferous tubules diameter. Twenty five male Balb/c mice age 12 weeks old which used as experimental animals were divided into five groups; each containing 5 mice. Group P0 served as control group, P1 (1,6 mg/0,5ml/day), P2 (3,2 mg/0,5 ml/day), P3 (6,4 mg/0,5 ml/day), and P4 (12,8 mg/0,5 ml/day) were given propolis ethanolic extract treatment orally and killed after 14 days. Spermatogenic cells number (spermatogonial cells, primary spermatocytes, spermatids) and seminiferous tubules diameter were analyzed microscopically as the parameters of histological observation. The result showed lower number of spermatogonial cells and primary spermatocytes number in groups which treated with propolis ethanolic extracts compared with control group. Significant difference of spermatogonial cells number reduction were found in P1 and P2 groups, and in primary spermatocytes reduction were found in P2 group. The number of spermatid were increased significantly in P1, P3, and P4 group. Seminiferous tubules diameter were decreased significantly in P2 and P3 group. P2 group (3,2 mg/0,5 ml/day) showed the lowest result in all parameters. These findings might suggest that oral administration of propolis at this dose for 14 days may decrease spermatogonial cells and primary spermatocytes and increase spermatids number in adult mice.

**Key words:** propolis, spermatogenic cells, testis histology

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