Abstract (English)

Introduction: *Teucrium polium* L. Germander, a member of the mint family (Lamiaceae), or Ja‘a‘deh as it is known in Jordan and in many Arab countries, is a medical plant which has been used in traditional medicine for various purposes such as antihypertensive, antibacterial, anti-inflammatory, antidiabetes, liver disorder, kidney stones, and for fertility problems. Phytochemical investigations have shown that *T. polium* contains various compounds such as terpenoids, flavonoids and phytoestrogens which have been isolated from different parts of this plant.

Methodology: This research was conducted to study the effect of *T. polium* (both methanol and n-hexane extracts) on the fertility of the rat male and observing the changes happening on their reproductive system. Rats were injected intraperitoneally with *T. polium* extracts for 60 consecutive days. They were sacrificed then their fertility parameters were studied.

Results: The following results were obtained: The methanol extract does not cause any significant change in male rat fertility index (% of impregnated females by treated males) although it caused a significant reduction in the sperm count and a significant increase in the sperm abnormalities, while it does not affect the sperm motility, total serum testosterone level, testis cells or spermatogenesis stages. On the other hand, the effect of n-hexane extract was evident on the sperm analysis. It caused a significant reduction in the sperm count, motility, libido, mount frequency and it raised the sperm abnormalities significantly too. At the same time, it does not affect total serum testosterone level, testis cells or spermatogenesis stages. Also, there was no significant effect of both methanol and n-hexane extracts of *T. polium* on the liver or kidneys of the rat male.

Conclusion: *Teucrium polium* methanol extract does not have a significant effect on male rat fertility index, while *Teucrium polium* n-hexane extract had a negative impact on the male rat fertility by decreasing some of the fertility parameters significantly.

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Effect of *Teucrium polium* Extracts on Rat Male Reproductive System

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