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The Effect of Lepidium Meyenii on Viability, Motility, and Sperm Morphology in Treatment of Infertility Among Adult Male Wistar Rats

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Abstract : In the present work, the effect of Lepidium meyenii on viability, motility, and sperm morphology in the treatment of infertility of adult male Wistar rats was evaluated. 21 male Wistar rats were adopted, fed and brought up in the same conditions to reach the weight of 230±5 g. after that, they were randomly divided into three groups, including two experimental groups and one control group, each group consisted of 7 rates. Lepidium meyenii was extracted and pulverized. Mice in the control group were treated with distilled water, and experimental groups were gavage with alcoholic juice extracted from Lepidium meyenii once a day for 10 consecutive days. After rates were killed, the testes were isolated. Different parameters includes semen volume in mice, sperm count, sperm motility, morphology, and viability, were evaluated. The results shows that sperm motility and sperm survival indices were significantly different between groups, and sperm count and sperm morphology indices were not significantly different. Sperm motility index in intervention group 1 was equal to 77.00±2.499 and was significantly higher than the one in intervention group two (70.14±3.579, P=0.018) and control group (69.43 ±7.323, P=0.018). Sperm survival index was 91.14 ± 2.410 in intervention group 1, 79.43± 5.062 in intervention group 2, and 76.71.6.651 in the control group (P<0.001). Based on the results of the present study, Lepidium meyenii had great effect on improving sperm indices of mice, especially sperm motility index and sperm survival index. Sperm count index and sperm morphology index, although increased, were not statistically significant.

Keywords : infertility, lepidium, sperm morphology, sperm survival
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