

Summary of D.V.M. thesis No 26113 , Faculty of Veterinary Medicine of Urmia University.

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Title of thesis: Effect of Livergol on Reproductive Complications of Experimental Cholestasis in Mature Male Rats

Summary:

Cholestasis, a multifaceted complication resulting from an imbalance between bile production and secretion, occurs in many diseases and can lead to further damage. This study aimed to investigate the effects of the drug Livergol on the reproductive outcomes of experimental cholestasis in adult male rats. Twenty adult male rats of similar age and weight were randomly divided into four groups. Group 1 consisted of five healthy rats kept as controls without treatment until the end of the study. In Group 2 (sham), laparotomy and ductal manipulation without ligature were performed. In Group 3 (experimental cholestasis), two ligatures were placed a few millimeters apart in the common bile duct, and the section between the ligatures was excised. In Group 4 (experimental cholestasis + Livergol), after inducing cholestasis, rats were treated with Livergol (300 mg/kg orally) for four weeks. Histopathologic changes and sperm parameters of the testis were evaluated. Oral administration of Livergol significantly improved the testicular biopsy index (Johnsen's Score) and significantly decreased the testicular histopathology index (Cosentino Criterion) following the induction of experimental cholestasis in rats ($P < 0.05$). The findings showed a significant increase in the number, viability, and motility of epididymal sperms in the Livergol-treated rats. It can be concluded that Livergol reduces testicular damage and improves sperm indices and the process of spermatogenesis.

Key words: Livergol, Cholestasis, Rat, Sperm, Testis