Theme 3: Biochemistry & Physiology (Poster)

Therapeutic Effect of Dates (*Phoenix Dactylifera*) on the Histological Features of Morphine-Treated Male Rat Reproductive Accessory Organs.


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The deleterious effects of drug on reproductive toxicity have been studied extensively for the past 20 years. Recently, traditional medicine which has notable nutritional values is widely used as a folk preparation in averting male infertility. The aim of this study was to assess the therapeutic effects of *P. dactylifera* on the histological features of morphine-treated male rat reproductive accessory organs. Adult male Sprague Dawley rats age 7-9 weeks old, 200-250g body weight (BW) were randomly divided into: Group 1 was force-fed with distilled water, 1ml/kg BW for 35 days, Group 2 was intramuscularly (i.m) injected with Morphine, 20mg/kg BW for 7 days followed by distilled water for 28 days, Group 3 was injected (i.m.) with morphine, 20mg/kg BW for 7 days followed by force-fed of crude *P. dactylifera* extract, 200mg/kg for 28 days. The seminal vesicle and prostate gland were dissected prior to histological processes. The results showed that exposure to chronic morphine induced histological alteration of the seminal vesicle (SV) and prostate gland (PG). Flattened columnar epithelial cells with absence of secretion in the lumen were noted in SV and PG for Group 2 as compared to control. Interestingly, the histoarchitechture of SV and PG in Group 3 that was supplemented with *P. dactylifera* were improved. Highly folded mucosal layer with tall columnar epithelial cells were distinguished. The luminal of the glands were also filled with secretion. These findings indicate that dates could be a potential healing agents to cure male infertility due to morphine intake.