

**P-457****Protective effects of long term testosterone administration on epididymal sperm parameters in experimental varicocele male rats****Anahid Shafie, Behjat seifi, Ghorbangol Ashabi, Mehri Kadkhodae, Farzaneh Kianian, Keivan Lorian**

Department of Physiology, Faculty of Medicine, Tehran University of Medical Science, Tehran, Iran

**Background and Objective:** Varicocele is one of the most important causes of male infertility characterized by abnormal dilation and tortuosity of the pampiniform plexus veins. Steroidogenesis potent of leydig cells is decreased in varicocele. The present study is designed to evaluate whether testosterone as a steroid agent has protective effects on epididymal sperm and testis parameters in varicocele-induced male rats.

**Methods and Materials:** Adult male rats were randomly assigned to 3 groups: varicocele, sham, and testosterone. In the varicocele group, the left renal vein was partially ligated. In the sham group, partially ligation of the left renal vein was not performed. In the testosterone group, five weeks after the induction of varicocele, 400µg/kg testosterone was given subcutaneously for four weeks. The left caudal epididymis was used to assess sperm motility and viability. Testis tissue samples also resected to determine indices of weight and volume.

**Results:** Varicocele caused significant decreases in the progressive motile sperm and viability compared with sham group. Administration of testosterone significantly increased the progressive motile sperm and viability in varicocele rats compared with varicocele group. However, there were no significant differences in the weight and volume of testis among groups.

**Conclusion:** This study suggested that long term testosterone administration improved sperm parameters in varicocele male rats. Therefore, testosterone appears to be useful for the treatment of varicocele-induced male infertility.

**Keywords:** Varicocele; Testosterone; Progressive motile sperm; Viability

**P-458****Investigation the effects of Iranian snake, Naja naja oxiana venom on the level of blood glucose of experimental diabetic rats****Shiva Shahdadi, Farshid Hamidi, Behrooz Fathi**

Department of Basic Sciences, School of veterinary medicine, Ferdowsi University of Mashhad, Mashhad-Iran

**Background and Objective:** Diabetes is a chronic disease that occurs as a result of impaired insulin production and function which in turn lead to increase level of blood glucose and many complications. Snake venom is a complex mixture of pharmacologically active compounds. In this study, the effect of Iranian snake, Naja naja oxiana venom on level of blood glucose of diabetic male rats was investigated.

**Materials and Methods:** The combination of nicotinamide (NA) (230 mg/kg) and streptozotocin (STZ) (65 mg/kg) was used to induce type two diabetes (T2D), and STZ (55 mg/kg) alone was used to induce type one diabetes (T1D). After induction of (T2D) in 24 male rats, they were divided into 3 groups: one as control and two other groups received the venom at 0.2 and 0.4 mg/kg. After induction of (T1D) in 16 male rats, one as control and other group received the venom at 0.2 mg/kg. A group of 8 rats received the venom at 0.2 mg/kg for 7 days and then received STZ at 55 mg/kg. Blood glucose level was measured with glucometer and intraperitoneal route (IP) has been used for all injections.

**Results:** The Naja naja oxiana venom significantly reduced the blood glucose in both types (I & II) diabetic rats. The venom has not any effect on level of blood glucose of healthy rats and also unable to prevent the STZ action.

**Conclusion:** The results showed that Naja naja oxiana venom has anti-diabetes effect and can be a potential treatment for diabetes.

**Keywords:** Diabetes, Naja naja oxiana, Venom, Streptozotocin, Nicotinamide