The Effects of Voice-Induced Stress on Mice Testes Parameters

Ali Kalantarihesari¹, Behnaz Ghorbanzadeh², Sajad Sahab Negah³, 4*

¹ Histology and Embryology Group, Basic Science Department, Faculty of Veterinary Medicine, Tehran University, Tehran, Iran.
² Parasitology Group, Department of Basic Science, Faculty of Veterinary Medicine, Urmia University, Urmia, Iran.
³ Shefa Neuroscience Research Center, Khatam Alanbia Hospital, Tehran, Iran.
⁴ Histology and Embryology Group, Basic Science Department, Faculty of Veterinary Medicine, Shiraz University, Shiraz, Iran.

Abstract

Reports indicate that one of the causes of harmful to the genital system, especially the testes stress. Stress could be created secondarily after some pathological conditions such as neurological diseases or environmental factors. One of the causes of stress could be scary voices, such as cat voice for mice. In this study we aimed to investigate the testes parameters in the animals that were exposed against cat voice to induce stress. Twenty male and clinically healthy mice (20-25 gr and 6-8 weeks old age) were divided to 2 groups including control and test groups. The stress was induced by using cat voice. The control animals were placed in a quiet environment and the test group was placed in a stressful environment. Cat voice was administered each 2 h for 35 days. At the end of experiment the testes were fixed in formalin and after tissue processing and staining with hematoxylin-eosin morphology tubular differentiation index (TDI), republication index (RI) and spermiogenesis index (SI) were investigated. The results of this study showed that despite the decrease in the each of TDI, RI and SI in the test group compared with the control group, But the differences were not significant (P>0.05). These results indicate that the stress has little effect on testes morphometric parameters.

Keywords: Mice, Testes, Stress, Testes Morphometry.

*Corresponding Author: Sajad Sahab Negah
Email: sahabsajad@yahoo.com