Abstracts: Poster Presentation

Theme: Education

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NICOTINE AND SEMINAL VESICLE: STRUCTURE AND FUNCTION
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Objective
This study was conducted to observe the changes of histological features and androgen receptor of rat seminal vesicle due to nicotine administration.

Methods
Eighteen Sprague-Dawley male rats (7-9 weeks old, 200-250g) were randomly divided into two groups, nicotine (0.5mg/100g) and saline (0.1ml/100g) and treated daily for 100 days. The seminal vesicle was extracted and fixed in formalin solution for histological and immunohistochemical processes.

Result and Discussion
Present results showed a reduction in the epithelial height of the mucosal linings of seminal vesicle with minimal acidophilic secretion in its lumen of the nicotine group. On the contrary, the saline group showed presence of tall epithelial height and acidophilic secretion in the seminal-vesicle lumen. As in the immunohistochemical study, high intensity of brown colour, androgen receptor staining was observed in the epithelial cells of the saline group. However in the N group, very weak intensity of brown colour was showed in the epithelial cells of seminal vesicle. Probably, this may due to nicotine increases generation of ROS level which causes a decline in the androgen receptor (AR) expression in the seminal vesicle.

Conclusion
This study suggests that nicotine caused damage to the histoarchitecture and androgen receptor of seminal vesicle of rat.

Keywords: Nicotine, seminal vesicle, androgen receptor, histology, rat