Abstract

This study was performed in order to analyze the effect of analogue of BPA negatively impacts on male reproductive system and development of testis by using mice model. Bisphenol S is an important toxic organic compound which exerts harmful effects in animals and humans upon its exposure. As, an endocrine disrupting chemical it alters the normal function of endocrine system by disturbing its normal mechanism. In this sex 6-8 experiment weeks old mice were taken from animal rearing facility .Swiss albino mice were placed in different groups of male and female for mating. After mating gravid mice were kept in separate cage Mice were segregated into a total of five groups and exposed to different concentrations of BPS. Total of 4 concentrations were selected for exposure making 4 treatment groups i.e. 100 mg/kg/day (group B), 150 mg/kg/day (group C), 250 mg/kg/day (group D), 500 mg/kg/day (group E), fifth group label as control group (group A) and provided with only corn oil without BPS. Weight of each mouse was recorded daily from start of the experiment till the end. After treatment mice, dissection was performed and testis and were preserved for slide preparation. Before dissection we were also take blood sample and perform extraction. Our data indicated that by exposure of BPS significantly reduced the male to female sex ratio and size of the gonads of male pups. The testis of perinatally exposed male pups were developed less and the expression level of KISS 1 gene was enhance than the control group. The less developed testis were accompanied with significant increase in the expression level of GnRH at the hypothalamic pituitary level. Degradation of Sertoli cells was observed in mice of all experimental groups. Formation of multinucleated Sertoli was observe in high dose treated mice. Vacuolization was observed in different cells of testis. Hence, the damage of all important cells of testis negatively affect the process of spermatogenesis and reduce the sperm count.