

PARENT'S STRESS DURING ADULTHOOD, INDUCE ANXIETY-LIKE BEHAVIOR IN RAT OFF-SPRINGS

A. Nahavandi^{1,2}, S. Niknazar², R. Aghandeh³

¹Physiology, Faculty of Medicine, TUMS, ²Physiology Research Centre, TUMS, ³CMRC/TUMS, Tehran, Iran

Introduction: In competitive world of today, stress is not preventable. Stress may result in different behavioral, hormonal and/or molecular pathologies.

Objectives: To our knowledge all the studies up to know, in this field is limited to stress victims, in their own generation not their next generation at all.

Aims: In order to study any possible foot print of parent's stress on their off springs we planned this study.

Method: 48 male and female 250 gr adult rats were divided to four groups (n=12). Stressed and control. To induce stress, forced swim stress was administered daily 15 min for 21 continuous days. Mating between groups resulted in four type of pups.

Stressed both mother and father, just mother stressed, just father stressed, and non-stressed parents.

So, we can conclude that anxiety could be transferred from parents to offspring.

off springs were studied at 30th day of age by elevated plus maze and biochemical studies for corticosterone plasma level.

Result: Our results showed a higher corticosterone plasma level and anxiety-like behavior in victim pups in comparison to control.

Conclusion: Our results showed anxiety in victim pups, but not the pups with normal parents.

So, we can conclude that anxiety could be transferred from parents to offsprings.