

Differential proliferative response on ovarian follicular development of ucha and uchb adult rats (Ethanol voluntary intake)

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Chronic alcoholism, in women, leads to psycho and physical impairment, possibly being harmful to fertility and to their offspring. Ethanol has the ability to interact by direct or indirect way on the ovary, promoting reproductive functional imbalances as blockage to ovulation, follicular disorders, hormonal levels disrupts and others. Regarding that the chronic alcoholism has a current and dangerous incidence to reproduction, the aim of this work was verify the ethanol action on the UChA (lower 10% v/v ethanol voluntary consumption) and UChB (higher 10% v/v Ethanol voluntary consumption) adult rat ovary follicular development. 21 adult female rats were divided in three experimental groups: UChA rats (1.9 g/100 g/day ethanol voluntary intake), UChB rats (4 g/100 g/day ethanol voluntary intake) and Wistar control rats. The females received ethanol during 60 days and killed on estrous phasis. Their ovaries were collected, processed and immunostained by proliferating cellular nuclear antigen - PCNA. Statistical analysis was used with $p < 0.05$. The UCh strain and control ovarian follicles showed a distinct pattern to PCNA reaction. The primordial follicles did not present an immunoreaction in the groups. The UChB rat primary follicles exhibited a stronger PCNA-positive reaction compared to UChA and control groups ($p < 0.05$). The UChB rat growing follicles had a partial immunoreactivity among granulosa cells in opposition to UChA and control rats. All groups showed a low cellular proliferation activity in antral follicles with UChB rats advanced follicular atresia. These findings might be explaining that there is a large proliferative activity in earlier development follicles by exposure to high ethanol consumption, acting as compensatory mechanism in the later degenerating antral follicle.

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