Inhibitory effect of cetrorelix on thiotepa induced folliculogenesis disturbances

Ramouz A, Mohammadnejad D and Hosseini M
Tabriz University of Medical Sciences, Iran

Objective: Infertility problem affects 20–30 % of young couples. One of the known causes of oogenesis disorder is chemotherapy in patients with cancer. Since dividing cells are mainly affected by anticancer drugs, the aim of the present study is investigating the preventive effect of GnRH on oogenesis defect produced by anticancer drug.

Material and Methods: In the present study 30 adult female mice aging 6-8 weeks were used. The mice were divided into 3 equal groups as control, exp group 1 and exp group 2. In exp. group 1 Thiotepa were injected as ip for 5 days at 2.5 mg/kg. In exp group 2, cetrorelix injection was started one week before thiotepa treatment and continued for 3 more weeks. The mice in all groups were sacrificed 3weeks after the last dose of cetrorelix injection. Ovaries specimens were prepared for LM studies.

Results: Microscopic study revealed that in the control group the mean number of primordial, primary, secondary and tertiary follicles were 1184±214, 241±26, 58±14, 42±7 respectively. In exp group 1 the mean number of above mentioned follicles were 629±180, 202±25, 39±7, 19±2 respectively but in the exp 2 group the mean number of above mentioned follicles were 1033±128, 231±30, 55±13, 38±8. The data showed the difference between control and exp 1 group was significant, but the difference between control and exp. 2 was not.

Conclusion: It's concluded GnRH antagonist administration before cancer treatment could prevent the side effect of anticancer drugs.

ali.ramouz@gmail.com

Ramouz A et al., J Blood Disorders Transf 2014, 5:8
http://dx.doi.org/10.4172/2155-9864.S1.008