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## Effect of starvation and refeeding on spermatological parameters and oxidative stress in rats

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**Statement of the Problem:** This study was aimed to investigate the effect of starvation and refeeding on spermatological parameters and oxidative stress in wistar rats.

**Methodology & Theoretical Orientation:** Twenty-four healthy male Wistar-Albino rats were used in this study. The animals were randomly divided into four experimental groups, including six rats in each. These groups were arranged as follows: Group 1 served as the control, received food during study. Group 2 were starved 5 days, Group 3 were starved 5 days and refeed 5 days, Group 4 were starved 5 days and refeed 7 days. In this study, weights of body and reproductive organs (testes, epididymites, seminal vesicles, ventral prostate), sperm parameters (concentration, motility) and blood malondialdehyde (MDA), reduced glutathione (GSH) levels, catalase (CAT), glutathione peroxidase (GSH-Px), superoxide dismutase (SOD) activities were determined. Findings: Starvation caused the reduced weights of body and reproductive organs (especially testes and prostate) and sperm concentration ( $p < 0.05$ ). In addition, starvation caused the oxidative stress by the increased MDA and GSH levels and the reduced antioxidant enzyme activities in blood ( $p < 0.05$  and  $p < 0.001$ ). Refeeding produced amelioration in spermatological parameters and biochemical indices in blood when compared to starvation group.

**Conclusion & Significance:** In conclusion starvation has damaging effect and in rat reproductive organs and cells by increasing the lipid peroxidation.

### Biography

Seyma Ozer Kaya is working in Department of Reproduction and Artificial Insemination, Faculty of Veterinary Medicine, Firat University, Elazig, Turkey. She is continuing his scientific studies in various subjects in the same place. Her work focuses more on male and female reproductive system problems and its prevention.

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