

The Reversible Effect of Cimetidine on Number and Motility rat Spermatozoa

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Abstract

This study carried out to investigate the reversible effect of cimetidine on: Sperm count and Sperm motility in male rat. 80 mature male Charles River rats (285 - 315 gr) divided in to 8 groups: blank (G₁), received no treatment at all, control, received 100 mg / kg / day normal saline IP for 5 weeks (G₂).

The other six groups received 100 mg / kg / day cimetidine IP for 1 Week (G₃), 2 weeks (G₄), 3 weeks (G₅), 4 weeks (G₆), 5 weeks (G₇) 6 weeks (G₈). However G₈ during the last sixth week received no treatment. When the animal was anesthetized sperm samples taken from vas deferens to investigate its motility and counts.

Results revealed that sperm count decreased in the test compare to control and blank groups and nonmotile sperm increased in test (G₃- G₇) compare to control groups. However in G₈ which sperm count and motility were analyzed one week after termination of cimetidine injection there were no significant differences in this parameter between controls and test. So the effect of cimetidine on sperm count and motility is reversible. We concluded that the reduction in sperm count and motility may be due to the direct effect of cimetidine on seminiferous tubules, which is reversible.

Key words: Rat, Cimetidine, Sperm, Spermatogenesis.

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