

عنوان مقاله:

Effect of Metronidazole in Sperm Progressive Motility, DNA Fragmentation and Sperm Quality Parameters in Adult Rat

محل انتشار:

بیستمین کنگره بین‌المللی بیولوژی تولید مثل و پانزدهمین کنگره بین‌المللی سلول های بنیادی (سال: 1398)

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خلاصه مقاله:

Background: Infertility is one of the major problems in the world, sperm progressive motility has been reported to be one of the key factors. Influencing in vitro and in vivo fertilization rates. there has been an increase in the literature of studies investigated with other semen parameters, however, few reports focused on the relationship between sperm DNA fragmentation and progressive sperm motility. Materials and Methods: Male adult rat (200-250) gr were divided into two groups of sixteen each. Control and metronidazole treated group were administered 300 mg/kg metronidazole for 90 days, respectively. The animals were sacrificed 90 days after starting treatment. The histological change on germinal epithelium, sperm quality parameters (count and normal morphology), viability and DNA fragmentation on sperm were analyzed by light microscopy, Computer-aided Sperm Analyzer (CASA). Results: Metronidazole administration significantly decreased parameters of sperm (count and normal morphology) and increased germinal epithelium destruction. The head, mid piece and tail abnormalities of treated group were increased significantly versus control. Higher levels of TUNEL positive cells that were found in treated groups demonstrated the increasing of DNA fragmentation in sperms following metronidazole treatment. Conclusion: Overall, our data suggest that sperm DNA damage is strongly associated with percentage of motility.

کلمات کلیدی:

Metronidazole, Sperm Motility, Epididymal Sperm, DNA Fragmentation

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