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Abstract

Background: Male infertility represents almost half of all infertility cases worldwide. High social activities have made some men use earphones or hands-free devices to stay in touch while on the move; hence, often giving radiation exposure to male reproductive organs when their mobile phone is kept in trousers' pocket or on the belt. Because testis is an organ that is susceptible to radiation, the effect of radiation on testis is worth investigating. **Objective:** This study aimed to determine the direct effect of radiation exposure on the motility quality and viability of human sperm. **Material and method:** Thirty two healthy men came to donate their sperm. Each sample was prepared by swim-up method. The sperm samples obtained were multiplied by means of dividing each sample into two parts and each part was assigned into the treatment group (exposed to mobile phone radiation) and control group. The sperm sample then underwent a procedure to assess its mobility and viability, which was performed every 30 minutes for 3 hours. **Results:** A total of 64 washed samples were included in this study. The duration of exposure of mobile phones to sperm at 30, 60, 90, 120, 150, and 180 minute did not show significant differences in motility or viability of the sperm compared to those of the control group. **Conclusion:** This study concludes that the exposure to mobile phone radiation to sperm that has been washed for 3 hours does not lead to a negative effect on motility and viability when compared to the control group.

Subject Areas

Gynecology & Obstetrics

Keywords

Phone Radiation, Sperm, Motility, Viability