

2nd International Conference on Animal & Dairy Sciences September 15-17, 2014 Hyderabad International Convention Centre, India

Survivability and sperm morphology of frozen thawed semen of Murrah buffalo bulls treated with caffeine

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The effect of different concentrations of caffeine (motility stimulator) on progressive sperm motility, live sperms and abnormal spermatozoa in frozen thawed semen of Murrah buffalo bulls after one and three hours of incubation at 37°C was studied. Frozen semen of six Murrah buffalo bulls used in this study was procured from Central Institute of Research on Buffalo, Sirsa Road, Hisar. Frozen semen straws were thawed at 37°C for 30 sec. The semen so obtained was transferred to the clean and sterilized test tube previously kept at 37°C and in each of the tube, 1.9 ml semen was transferred. In the control semen sample (1st tube) 100 µl Tris-buffer was added and in the other tubes, 100 µl of Caffeine at a concentration of 2.5, 5.0, 7.5 and 10 mM/ml was added. Progressive sperm motility was observed after 1st, 2nd and 3rd hour of incubation at 37°C. It was observed that progressive sperm motility and live spermatozoa were significantly higher and sperm abnormalities were lower in the semen samples supplemented with caffeine @ 5.0 mM/ml during 1st and 3rd hour of incubation at 37°C as compared to other concentrations and control semen samples.

Biography

Meenakshi Virmani is presently working as Assistant Endocrinologist in the Department of Veterinary Physiology & Biochemistry, College of Veterinary Sciences, Lala Lajpat Rai University of Veterinary and Animal Sciences, Hisar, Haryana (India). She did her PhD in the discipline of Veterinary Physiology from College of Veterinary Sciences, Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana (India) in the year 2002. The topic of her PhD thesis was "Studies on Equine Chorionic Gonadotropin (eCG) and development of immunoassay for pregnancy diagnosis in mares". She has more than 20 publications in reputed research journals and serving as an Editor of Indian Journal of Comparative Microbiology, Immunology and Infectious Diseases.

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