



The testicular parenchyma of 1-month-old bucks with a coarse medium echotexture appeared as a dotted structure in the middle longitudinal plane and as a dotted structure in the transverse plane. Initially the testis appeared hypoechoic and then hyperechoic as it matures with development of age. The epididymis was clearly visible and it appeared hypoechoic then testicular parenchyma appeared as a pampiniform structure. The pampiniform vein was clearly imaged as a dome shaped structure above the upper part of head of the scrotal septum was seen in the 1-month-old bucks. The tunics of the testes appeared as a bright echogenic line. Inter-testicular septum appeared between testes as a dotted line. At 1 month of age the images appeared hypoechoic that became echoic and then hyperechoic with advancement of age of buck. It was concluded that the 2D ultrasonography can be used to study the testicular parenchyma and its surrounding structure.

Evaluation of Boar Semen Quality in Relation to Lipid Peroxidation Status and *In Vitro* Sperm Character

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The present study investigated the levels of lipid peroxides in boar semen and its relation with sperm motility during liquid preservation at 17°C. A total of 24 boar semen samples were extended with Beltsville Thawing Solution and Safcel plus and preserved at 17°C. Each ejaculate was evaluated for progressive sperm motility and lipid peroxidation level at 24 hours interval during storage. Lipid peroxidation level of spermatozoa was estimated in semen samples by measuring the malondialdehyde (MDA) using thiobarbituric acid (TBA) assay. At the start of the preservation (day 0), the MDA levels ($\mu\text{mol/ml}$) were significantly ($P<0.01$) lower in both the semen extenders. However, as the storage days progressed there was gradual increase in the MDA levels with a steady decrease in sperm motility. The MDA level in BTS group were

significantly higher ($P<0.01$) than the Safcel plus group, on day 3 (1.228 ± 0.100 vs 1.127 ± 0.074), day 4 (1.509 ± 0.132 vs 1.297 ± 0.087) and day 5 (2.012 ± 0.149 vs 1.613 ± 0.108). But during storage, the Safcel plus maintained significantly higher ($P<0.01$) motility than the BTS buffer. The motility values between Safcel plus and BTS groups on day 1 (67.92 ± 1.686 vs 54.58 ± 2.829 , $P<0.01$), on day 2 (57.08 ± 3.960 vs 45.42 ± 4.216 , $P<0.01$), on day 3 (52.92 ± 3.434 vs 40.83 ± 3.505 , $P<0.05$), day 4 (52.50 ± 3.026 vs 33.33 ± 3.160 , $P<0.01$), and day 5 (51.25 ± 4.355 vs 27.50 ± 2.019 , $P<0.01$). MDA level had a highly significant ($P<0.01$) negative correlation with sperm motility in BTS (-0.926) and in Safcel plus buffer (-0.924) during the storage period. The findings of the present study revealed that there is oxidative stress and development of lipid peroxides in the sperm cells during liquid preservation at 17°C, the long term extender Safcel plus had better ability to control oxidative stress and to maintain sperm cell motility for a longer period than the short term buffer BTS.

AIA-39: Assessment of Semen Quality in Pure and Crossbred Jersey Bulls with Special Reference to Plasma Membrane, Acrosome and DNA Integrity

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The study was conducted to ascertain the semen quality of pure and crossbred Jersey bulls at neat, pre-freeze (equilibration) and post-freeze (after 24 hrs.) stages. Total 36 ejaculates from twelve healthy bulls (6 pure and 6 crossbred Jersey bulls) belonged to Frozen Semen Laboratory, MLDB Nagpur were evaluated for plasma membrane, acrosome and DNA integrity. The plasma membrane integrity was judge by Hypo-osmotic swelling test (HOST), acrosomal integrity was evaluated by Giemsa staining and DNA integrity was assessed with Acridine Orange test. The mean (\pm S.E.) values at neat, pre-freeze and post-freeze stages of semen in pure and crossbred Jersey bulls were recorded; HOS reacted spermatozoa $71.88\pm 0.77\%$, $62.05\pm 0.80\%$, $47.27\pm 1.05\%$ vs $72.77\pm 1.02\%$,

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prolapsed uterus was washed with potassium permanganate solution. Urinary bladder was emptied by using urinary catheter and edema of the prolapsed mass was reduced by applying hypertonic saline. Then the mass was lubricated with cetrimide cream and it was replaced to its original position. Animal was treated with Inj. calcium borogluconate 150 ml i/v, Inj. Enrofloxacin 100 mg i/m, Inj. Mefenamic acid 3 ml i/m, Inj. Chlorpheniramine maleate 10 mg i/m, Inj. Neurokind 1 ml i/m, Inj. Oxytocin 10 IU i/m, Uromet bolus 2 numbers I/U. Postoperative antibiotic, anti-inflammatory and antihistaminic drugs continued for three more days. Animal recovered uneventfully.

PS-063: Successful Treatment of Post Partum Uterine Prolapse in An Indigenous Cow and Subsequent Conception

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An indigenous cow of 5 years of age was presented in the Out Patient Unit of the Teaching Veterinary Clinical Complex of the College on 11th April, 2014 with the history of delivering a female calf and expelling the placenta normally after 5 hours of expulsion of the foetus following which a red mass of tissues protruded out of the vulva. The cow became restless and anorectic thereafter. On clinical examination the uterus was found prolapsed and hanging from the vulva up to the level of hock with distinct enlargement and oedema. The prolapsed uterus was cleaned, washed with weak potassium permanganate solution, well lubricated with 2 per cent methyl cellulose solution and replaced slowly under epidural anaesthesia (2% Lignocaine hydrochloride, Regain laboratories). Post replacement treatment included 450 ml calcium boro gluconate solution (Calborol, Novartis) intravenously, 15 ml pheniramine maleate (Avin, MSD) intramuscularly, 12 ml tolfenamic acid (Maxxtol, Intas pharmaceuticals) intra muscularly and 375 mg ceftiofur sodium (Tefrocef, MSD) intramuscularly. Ceftiofur sodium was continued for four subsequent days. Calcium boro gluconate solution 200 ml was again

injected intravenously after 12 hours. The cow came to heat within four months of treatment and was inseminated at first post treatment oestrus on 9th August, 2014 following which she was confirmed to be pregnant on 11th October, 2014 on the basis of per rectum examination.

PS-064: Pre and Post Partum Prolapse in A Crossbred Cow: A Case Report

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A Pluriparous cow, about 8 years of age at Cattle Breeding Farm, Nagpur Veterinary College, Nagpur was attended. The cow had almost completed gestation period. She started straining and some part of vagina and cervix was exposed outside the perineum. The cow could not pass urine due to prepartum prolapse. The cow was having same complications in her earlier gestation. The cow was treated with intravenous calcium borogluconate injection 500 ml slowly with parental antibiotic oxytetracyclin (60 ml) and chlorpheniraminemaleate (10 mg/ml). The prolapsed material was pushed back after washing with $KMnO_4$ and was set in proper place in pelvic cavity. Cow was having fibrosis of cervix due to which cervix could not be dilated even after treatment. The cow was having frequent recurrence of prepartum prolapse, two days after; the delivery was done through caesarean section. Even after delivery cow was severely straining and uterus was everted and prolapsed out of vulva. The straining was controlled by providing caudal epidural anaesthesia using 5 ml injection of 2% lignocaine and reposed into its original position in pelvis with gradual force. The antibiotics and other supportive treatment were done. Cow was also administered with p-depot 1000 mg i/m. but the straining could not cease and animal went in lateral recumbency and condition could not be improved. Thus, it is confirmed that pre and post cervio-vaginal prolapse in the same animal might be a serious and fatal condition in bovines.