# Poster Presentations

## Andrology

### P-1: Addition of Omega-3 Unsaturated Fatty Acids in Sperm Extender Does Not Improve The Quality of Chilled Bovine Sperm

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**Background:** The importance of polyunsaturated fatty acids (PUFAs) on chilled sperm quality is under investigation. Addition of fatty acids to the diet can influence sperm quality and male fertilizing capacity. The aim of this study was to investigate if the addition of n-3 PUFAs improves quality of bovine chilled sperm.
**Materials and Methods:** In order to do experiment, 5 proven bulls were randomly selected and their ejaculates were collected by artificial vagina. Immediately, semen characteristics including volume, pH value, motility, viability, abnormality and concentration were recorded. Only ejaculates with normal characteristics were chosen. Then, each ejaculate was diluted by extender containing different supplementation (in 5 groups: group 1) basic extender (BX) as control, group 2) BX plus Polyethylene glycol (PEG) as a solvent, groups 3-5) BX containing three different concentration of n-3 PUFAs (1, 2.5 and 5%) in combination with PEG. Basic semen extender contains Tris-citrate buffer medium plus egg yolk and glycerol. All samples were maintained in refrigerator (5°C) for 24 and 48 hours.
**Results:** Motility (by CASA), viability and morphology were investigated in chilled sperm samples after 24 and 48 hours. The results were evaluated by repeated measure ANOVA using SPSS and $p<0.05$ was considered significant. Immotility (D) increased and all other parameters decreased over the liquid preservation period within all groups including control. Although parameters were decreased during the next 24 hours of preservation, they were not significant. Different concentrations of omega-3 supplementation didn't improve morphology and motility parameters significantly during the liquid preservation period. Even more, average of viability in group 5 (BX plus PEG and 5% PUFAs) was significantly decreased in compare with control group ($p=0.001$) which show an adverse effect on viability.
**Conclusion:** Our results showed that PEG has some detrimental effects on sperm motility and viability during chilling, and the addition of n-3 PUFAs to semen extenders could not attenuate the detrimental effects of PEG and did not significantly improve bovine sperm quality. Nonetheless, diet supplementation of bulls with n-3 PUFAs is advisable to modify the fatty acid compositions of sperm plasma membrane for increasing its resistance to cooling.
***Keywords:*** Bovine, Sperm Quality, Omega-3 Fatty Acids, Chilling

### P-2: Evaluation of Apoptosis in Germ Cells, following Treatment with Vincristine and Cetrorelix (GnRH Antagonist)

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**Background:** Infertility problem affects young couples. One of the known causes of spermatogenic disorder is chemotherapy in patients with cancer. Since dividing cells are mainly affected by anticancer drugs, the aim of the present study is to investigate the preventive effect of GnRH antagonist on spermatogenic cell apoptosis produced by anticancer drug.
**Materials and Methods:** In the present study 30 adult male mice aging 6-8 weeks were used. The mice were divided into 3 equal groups as: control, vincristine (V) group and vincristine + cetrorelix, (V+C) group. A single dose of Vincristine was injected as ip, at 1.5 mg/kg. In (V+C) group cetrorelix injection was started one week before vincristine treatment and continued for 3 more weeks. Since spermatogenic cycle in mice is 35 days, mice in all groups were sacrificed 35 days after vincristine injection. Half of testicular specimens were fixed in 10% formaldehyde and prepared for histochemical studies. Performed tunnel staining with POD- Kit.
**Results:** Histochemical studies, showed induce apoptosis in germ cells. The rate of apoptotic cell in control group was 1.54 ± 0.27µm, in (V) group was 5.97±0.70µm, and (V+C) group was 2.42±0.26 µm. Statistical analysis of data showed significant differences in rate of apoptotic cells between control and (V) group ($p<0.05$). But in (V+C) group apoptotic cells were similar to control group. And rate of apoptotic cells in (V) group were significantly upper than (V+C) group ($p<0.001$). Conclusion: According to the result it is concluded that GnRH antagonist administration before cancer treatment could partially prevent the side effect of anticancer drugs.
**Conclusion:** According to the result it is concluded that GnRH antagonist administration before cancer treatment could partially prevent the side effect of anticancer drugs.
***Keywords:*** POD-Kit, Histochemical Studies, Apoptosis

### P-3: Effects of Increased Mast Cells Number-Induced by Sulpiride Atipycal Antipsychotic Drug on Sertoli Cells and Sperm Production in Adult Male Mice

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**Background:** Male infertility is a widespread problem and increased number of mast cells-induced by some drugs like sulpiride atipycal antipsychotic drug, ara described in the testis of males, exhibiting impaired sper-