Comparison of AndroMed®, Bioxcell® and Triladyl® extender for cryopreservation of bull semen

Original title / Originaltitel
Kryokonservierung von Bullensamen mit AndroMed®, Bioxcell® und Triladyl®

Summary / Zusammenfassung
The objective of the present study was to compare the quality of frozen bull semen processed with three different commercially available extenders. For the experiments 58 ejaculates collected from 22 bulls of different breeds were splitted and diluted with AndroMed® (Minitüb, Tiefenbach, Germany) Bioxcell® (IMV, Aigle, France) and Triladyl® (Minitüb, Tiefenbach, Germany) to a final concentration of 90 million spermatozoa/ml. After cooling and equilibration at 5°C the diluted semen was packaged into 0.5 ml straws and frozen in an automatic freezer (Microdigitcool, IMV, Aigle, France). To asses the quality of frozen-thawed semen total and progressive motility was measured using a IVOS Hamilton Thorne sperm analyzer (Baumann Medical, Wetzikon, Switzerland). In addition, sperm viability was determined by fluorescence microscopy after SYBR -14/PI (LIVE/DEAD® Sperm Viability Kit, Molecular Probes, Leiden, the Netherlands) staining. Results of our investigation demonstrate that total motility in frozen-thawed semen processed in AndroMed® (67.7 ± 1.9%) showed significantly (P < 0.05) higher values when compared to Bioxcell® (60.9 ± 1.9%) and Triladyl® (52.4 ± 1.9%). Regarding progressive motility, semen extended in AndroMed® (33.1 ± 1.4%) and Bioxcell® (31.0 ± 1.4) was superior (P < 0.05) to Triladyl® (23.5 ± 1.2%). For sperm viability, however, significant better results were obtained using Triladyl® (78.5 ± 1.3%) than AndroMed® (72.6 ± 1.6%) or Bioxcell® (70.8 ± 1.6). From our evaluation we conclude that of all three extenders AndroMed® seems most suitable for freezing bull semen.

Publications / Publikationen

Keywords / Suchbegriffe
Bull, semen, extender, cryopreservation

Project Leadership and Contacts / Projektleitung und Kontakte
Dr. Fredi Janett (Project Leader)fjanett@vetclinics.uzh.ch
Prof. Dr. Rico Thun rthun@vetclinics.uzh.ch

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