

were surgically transferred into recipients' oviducts 2–3 days after detection of ovulation. In Experiment 1, cleavage rates of 1-cell embryos were similar ($p > 0.05$) for treatments and control. However, blastocyst rates were superior for the EG group compared to EG-DMSO ($p < 0.05$). The blastocyst rate of 8-cell embryos was higher ($p < 0.05$) for EG than the EG-DMSO group. In Experiment 2, the pregnancy rate on day 17 after transfer was 63% (five of eight) for equine embryos after ICSI, vitrification and warming.

Keywords: Equine; Embryo; Cryopreservation; Vitrification; ICSI

Table 1

Cleavage and blastocyst rates of bovine embryos vitrified at 1-cell or 8-cell stage

Vitrification method	Embryo stage				
	One cell (% per oocyte)			Eight cell (% per 8-cell embryo)	
	N	Cleavage	Blastocyst	N	Blastocyst
Control	81	86.4 a	25.9 a	81	56.8 c
EG	72	87.5 a	23.6 a	75	42.7 b
EG-DMSO	68	79.4 a	11.8 b	75	14.7 a

Values within columns with different letters (a,b,c) differ ($P < 0.05$).

THE REPEATABILITY OF A CANINE HERPESVIRUS-1 (CHV-1) PCR ASSAY AT ONE COMMERCIAL LABORATORY

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Polymerase chain reaction (PCR) assays for detection of canine herpesvirus-1 (CHV-1) are frequently performed in prebreeding examinations as well as to aid in the diagnosis of causes for pregnancy loss, infertility and neonatal disease. Several laboratories in North America offer PCR assays but virtually nothing is known about the sensitivity, specificity and overall performance of these DNA tests.

We examined the repeatability of a CHV-1 PCR assay offered by a commercial laboratory in Ontario, Canada. The objective of this study was to assess the

agreement of the results of duplicate samples collected from the same animal at the same time.

Convenience sampling of healthy dogs ($n = 30$) of various breeds, ages and fertility histories was performed between July and December 2005. Coded duplicate samples from each dog included EDTA blood, nasal swabs and vaginovestibular swabs (bitches) or preputial swabs (dogs). Laboratory personnel were blinded to the dog identification.

DNA was extracted using a modified DNeasy Tissue Kit (Qiagen Inc., Mississauga ON) protocol. A 267 bp nucleotide sequence of the canine herpesvirus-1 (CHV-1) thymidine kinase (TK) gene was specifically amplified from isolated DNA using a single PCR.

To assess the agreement between duplicate samples, kappa statistics were calculated for nasal swabs (kappa = -0.08), EDTA blood (kappa = 0.19), vestibular swabs (kappa = 0.2) and preputial swabs (kappa = -0.2). Overall agreement among different sampling sites from the same dog was poor (16%). In this convenience sample, which included 15 prepubertal animals, 93.3% of the animals were positive from at least one sampling site.

The PCR assay in this laboratory lacked diagnostic precision. Duplicate samples sent for CHV-1 PCR testing resulted in poor overall agreement. The poor agreement is of concern for the practitioner as well as researcher. Dog breeders need advice on the appropriate collection of samples and interpretation of tests before reasonable control measures can be implemented. Careful validation of the PCR assay, positive and negative control samples verified by virus culture, serology and histology and quality control measures in the laboratory might identify and prevent problems associated with the accuracy and precision of the PCR test for CHV-1.

Keywords: Canine; Canine herpesvirus-1; PCR assay

EFFECTS OF DIFFERENT DOSES OF PGF_{2α} ON THE EQUINE ESTROUS CYCLE

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The natural prostaglandin F-2alpha (PGF_{2α}), dinoprost tromethamine (Lutalyse[®]), is currently the only PGF_{2α} approved by the Food and Drug Administration agency (FDA) for use in horses. It is used at manufacturer