Viability of fresh and freezing epididymal sperm stored at 0, 24, 48, 72 and 96 h after stallion death

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*Matás, C., Avilés-López, K., Vieira, L., Garriga, A., García Vázquez, F.A., Gadea, J.
Deparment of Physiology , Facult of Veterinay Science, University of Murcia, 30100 Spain*
E-mail: cmatas@um.es

INTRODUCTION

Sudden death, catastrophic injury, castration or any other event that makes semen collection or mating impossible may prematurely terminate a stallion's reproductive life. Epididymal sperm may be the last chance to ensure preservation of genetic material after injury or death of a valuable male. Viable epididymal sperm can be harvested post-mortem for possible use in assisted reproductive technologies.

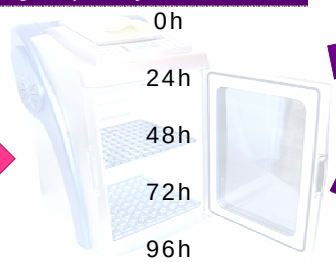
OBJECTIVE

To identify a "window of opportunity " to collect equine epididymal sperm for subsequent freezing and determine the influence of prolonged cold storage (4ºC) of on post-thaw sperm viability.

Materials and Methods

- Slaughterhouse
- Castration
- Other reasons

Storage epididymis at 4 ºC



1. Fresh sperm

Viability(IP/Carboxifluorescein)

2. Diluted sperm

Diluted in cryopreservation medium during 30 min, to 4ºC

Viability

Incubation during 0, 30 and 120 min at 37ºC

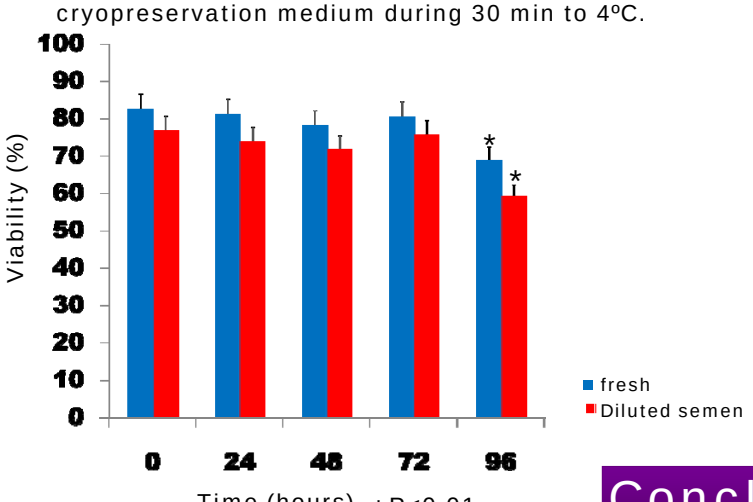
3. Cryopreservation sperm

Post-thawing

Sperm viability post-thawing

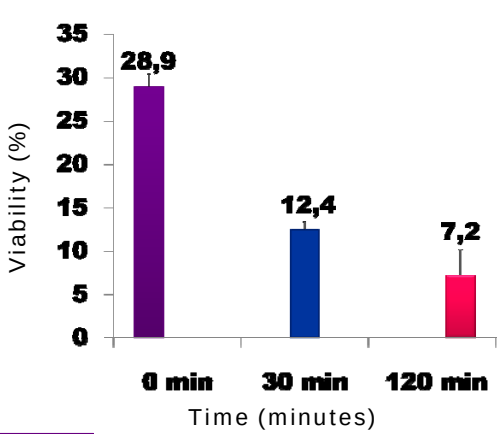
RESULTS

Viability percentage of fresh and diluted sperm in cryopreservation medium during 30 min to 4ºC.



*P<0.01

Viability percentage of sperm post-thawing 0, 24, 48, 72 and 96 hours



Conclusion

Spermatozoa recovered from stallion epididymis stored at 4ºC for 72 hours maintained the viability. This fact open the possibility to use epididymal sperm for artificial insemination.

Supported by seneca 08752/PI/08 and AGL2006-03495