## Accepted Manuscript

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Fernanda Carlini Cunha dos Santos, Jane Margaret Morrell, Bruna da Rosa Curcio, Márcio Menezes Nunes, Eduardo Malschitzky

PII: S0737-0806(17)30361-1

DOI: 10.1016/j.jevs.2017.05.015

Reference: YJEVS 2333

To appear in: Journal of Equine Veterinary Science

Received Date: 28 March 2017

Revised Date: 25 May 2017

Accepted Date: 26 May 2017

Please cite this article as: Cunha dos Santos FC, Morrell JM, da Rosa Curcio B, Nunes MM, Malschitzky E, Cushioned and Single layer Centrifugation improve epididymal stallion sperm motility post-centrifugation, *Journal of Equine Veterinary Science* (2017), doi: 10.1016/j.jevs.2017.05.015.

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## Cushioned and Single layer Centrifugation improve epididymal stallion sperm motility post-centrifugation

Fernanda Carlini Cunha dos Santos<sup>a</sup>\*, Jane Margaret Morrell<sup>b</sup>, Bruna da Rosa Curcio<sup>c</sup>, Márcio Menezes Nunes<sup>d</sup>, Eduardo Malschitzky<sup>a,e</sup>

<sup>a</sup> Universidade Federal do Rio Grande do Sul (UFRGS), Porto Alegre, Rio Grande do Sul, Brazil.

<sup>b</sup> Swedish University of Agricultural Sciences, Uppsala, Sweden

<sup>c</sup> Universidade Federal de Pelotas (UFPel), Pelotas, Rio Grande do Sul, Brazil.

<sup>d</sup> Universidade Federal de Viçosa (UFV), Viçosa, Minas Gerais, Brazil <sup>e</sup> Universidade Luterana (ULBRA), Canoas, Rio Grande do Sul, Brazil

\*Corresponding author at: Faculdade de Veterinária Universidade Federal do Rio Grande do Sul, Avenida Bento Goncalves 9090, Agronomia, CEP 91540-000, Porto Alegre, Rio Grande do Sul, Brazil.

\*Email adress: <u>carlini@portoweb.com.br</u> (F.C.C. Santos).

## Abstract

Traumatic injuries and sudden death can prematurely end the breeding career of a stallion. In such cases, a final spermatozoa collection can be obtained by harvesting the cauda epididymis. Semen samples can then be used for fresh artificial insemination or cryopreserved. Centrifugation is a critical point of sperm cryopreservation processing and can be detrimental to spermatozoa. Colloid centrifugation approaches reduce this physical damage and can be used to select better quality sperm. The aim of this research was to determine the effect of cushioned and Single Layer Centrifugation (SLC) on epididymal stallion sperm motility post-centrifugation. Eight stallions were submitted to bilateral orchiectomy and the resulting epididymal cauda (n=16) were flushed with semen extender. After harvesting, the samples were submitted to three centrifugation protocols: Conventional (20 minutes at 600xg), Cushioned (20 minutes at 900xg) and SLC (20 minutes at 300xg). The pellets were resuspended and sperm parameters were evaluated. Sperm morphology was

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