**Effect of Equex STM Paste on Goat Semen Cryopreservation**

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**Introduction and Objectives**

Addition of a detergent, Equex STM paste (Equex), in semen extender improves the post thaw quality of spermatozoa in many species (1), but a few reports in goat (2). This study aimed to evaluate the effect of Equex in semen extenders on goat semen quality after cryopreservation.

**Material and Methods**

Semen samples were obtained from three mature bucks of different breeds (Anglo-Nubian; A, Boer; B and Saanen; C) using an artificial vagina. The semen was evaluated as individual and pooled samples. The semen volume, sperm concentration, mass movement, motility, morphology, viability, membrane and acrosome integrity were evaluated. The semen samples showing >60% motility were submitted for cryopreservation. After removing seminal plasma, sperm pellet was diluted with a freezing medium composed of 14% glycerol + 10% egg yolk Tris-citric-fructose (v/v) [3] with or without 1% Equex (E+ or E-). The samples was equilibrated at 4°C for 4 hrs, cooled to -120°C for 10 min, and then frozen at -196°C (4). The semen was thawed at 37°C for 30 sec and the quality of the frozen-thawed semen was evaluated. The differences between the two groups were tested by an independent t-test (SPSS ver. 11.5).

**Results and Discussion**

Equex improved post-thawed semen quality in goat. The active compound in Equex is sodium dodecyl sulphate which might be exerted by enhancing the incorporation of egg yolk lipoproteins into sperm membrane (4). Moreover, it increases the semen qualities by acting as a surfactant to stabilize the cell membranes and to protect spermatozoa from the toxic effects of glycerol (5). However, addition of Equex in this experiment has no beneficial effect for the plasma membrane integrity similar to the studies in cats (6) and horses (5).

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**References**