Protective role of mucin coat

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ABSTRACT

Purpose: The present study was designed to examine the protective property of the mucin coat against pressure fluctuation.
Materials and Methods: Thirty non-hatched rabbit blastocysts containing mucin coat and thirty mouse blastocysts were exposed to pressure fluctuations in *in-vitro* conditions. Morphological response of the blastocysts was assessed 5 and 60 minutes after exposition to pressure fluctuation.
Results: Out of thirty mouse blastocysts there were 4 collapsed in 5th minute and 8 collapsed in the 60th minute. There were no collapsed rabbit blastocysts in 5th minute and only one in 60th minute. The difference between groups was statistically significant; $p<0.05$.
Conclusions: Mucin coat has a unique property of protecting embryo from a deleterious effect of the rapid pressure fluctuations.
Key words: blastocyst, mucin, mucin coat, pressure, rabbit embryo