

EFFECT OF COOLING OF BOVINE OOCYTES ON THE INCIDENCE OF CHROMOSOMAL ABNORMALITIES. ^{1,2}Luna HS, ¹Ferrari I, ¹Luna H, ²Rumpf R.,
¹Laboratory of Genetics, Faculty of Medicine, University of Brasília, Brasília, Brazil;
²Laboratory of Animal Reproduction, Embrapa-Genetics Resources and Biotechnology, Brasília, Brazil. hsluna@ig.com.br

Cytogenetic monitoring is a very important procedure, especially for gametes manipulated in vitro because of the risk of genetic alterations. The purpose of the present work was to verify the incidence of chromosomal abnormalities in bovine oocytes cooling at different maturation stages after completion of maturation in vitro. A total of 467 bovine cumulus-oocyte complexes were recovered from ovaries at a slaughterhouse and then divided into five groups: control; 0/4; 12/4; 0/RT; and 12/RT. The control group was held at 39°C. Groups 0/4 and 12/4 were both cooled to 4°C, the first before the onset of maturation and the second 12 hours after it. Groups 0/RT and 12/RT were both cooled to room temperature (29°C), the first before the onset of maturation and the second 12 hours after it. The oocytes were cooled for 45 minutes. In all groups, the oocytes completed 24 hours of maturation. Subsequently, the denuded oocytes were fixed on slides and stained with aceto-orcein. Each treatment was replicated 5 times and the data were analyzed by ANOVA test. No differences ($P>0.05$) in the incidence of chromosomal abnormalities were observed between the studied groups. These results suggest that the cooling to 4°C or room temperature for 45 min of bovine oocytes before or 12 h after the onset of maturation no influence on the incidence of chromosomal abnormalities after completion of maturation. Órgão Financiador : CNPq