

THE VIABILITY OF BIASECTED BOVINE EMBRYOS PRODUCED IN VITRO

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Summary. The aim of this study was to estimate the viability of bovine demi-embryos produced in vitro in the Ham's F10 and IVM media. Morulae and early blastocysts at day 6 and blastocysts at day 7 were bisected using "scratched bottom technique". Demi-embryos were cultured in the Ham's F10 medium and in the IVM medium for 24 hours, then they were morphologically classified for quality. From 54 demi-embryos that were cultured in the Ham's F10 medium 41 (75,93%) of demi-embryos have been restored; 38,71% of demi-morulae, 43,75% of early demi-blastocysts and 57,14% of demi-blastocysts were of excellent quality; 32,26% of demi-morulae, 37,5% of early demi-blastocysts and 28,57% of demi-blastocysts were of good quality; 24,07% of demi-embryos degenerated. From 46 demi-embryos that were cultured in the IVM medium; 23 (50,0%) of demi-embryos have been restored. 21,05% of demi-morulae, 9,52% of early demi-blastocysts and 0% of demi-blastocysts were of excellent quality; 26,32% of demi-morulae, 42,86% of early demi-blastocysts and 50,0% of demi-blastocysts were of good quality; 50,0% of demi-embryos degenerated. The demi-embryos of excellent and good quality that were cultured in the Ham's F10 medium had a higher number of viable cells than demi-embryos that were cultured in the IVM medium. The results of this study show that demi-embryos that were cultured in the Ham's F10 medium had a higher viability. Ham's F10 medium was better for the culture of the bisected bovine embryos produced in vitro than IVM medium.

Keywords: bovine, morulae, blastocysts, demi-embryos, in vitro, bisected.