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Effect of exposure duration of ovaries and oocytes in room temperature on parthenogenetic development of porcine follicular oocytes

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Experiments were conducted to evaluate the effects of exposing porcine ovaries to room temperature for 6 hours after transportation for 4 hours on the developmental competence of their oocytes. Moreover, it was determined whether or not the exposure of the collected oocytes to room temperature for 1, 2, and 4 hours within DPBS or porcine follicular fluid affects the cleavage and developmental competence of the oocytes. There was significant difference between the proportions of oocytes collected after storage of 4 and 10 hours that underwent cleavage. However the percentages of oocytes from ovaries exposed to 25℃ for 0 or 6 hours after transportation of ovaries for 4 hours were not different in developmental rates. The oocytes stored within DPBS medium were not influenced the storage duration of 1, 2, and 4 hours in cleavage and developmental competence. However, those within porcine follicular fluid were significantly decreased the cleavage and developmental competence after storage of 4 hours. These results suggest that when ovaries are stored at room temperature, oocytes collected from ovaries stored at room temperature within 6 hours after transportation of 4 hours are developed with no difference of the oocytes collected after arrival, although cleavage rate is decreased. And exposure of oocytes to room temperature until 4 hours in DPBS medium is not affected the cleavage and developmental competence.

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