

INTISARI

PENGARUH SUHU MEDIA TRANSPORTASI OVARIUM SAPI TERHADAP KUALITAS MORFOLOGI OOSIT *IN VITRO*

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In vitro embryo transfer merupakan salah satu cara meningkatkan efisiensi produksi ternak. Produksi embrio membutuhkan oosit yang dapat diperoleh dari limbah Rumah Potong Hewan (RPH) berupa ovarium. Karena keterbatasan alat atau jarak RPH dengan laboratorium yang jauh, maka diperlukan metode untuk menjaga viabilitas oosit sebelum dimaturasi dan difertilisasi. Faktor yang mempengaruhi kualitas oosit adalah suhu karena sensitifitas oosit yang tinggi terhadap suhu. Tujuan penelitian ini adalah untuk mengetahui pengaruh suhu media transportasi ovarium sapi terhadap kualitas morfologi oosit *in vitro*.

Ovarium diambil dari Rumah Potong Hewan (RPH), dicuci menggunakan 0,9% NaCl fisiologis yang diberi tambahan antibiotik. Ovarium selanjutnya dibagi menjadi tiga kelompok perlakuan. Perlakuan (suhu, T) meliputi: T1 suhu media transportasi 4°C, T2 suhu media transportasi 25°C, dan T3 suhu media transportasi 37°C. Koleksi oosit dilakukan dengan metode aspirasi menggunakan jarum 18 G dan *disposable syringe* 10 mililiter. Hasil koleksi oosit diamati di bawah stereomikroskop untuk diklasifikasikan menurut kualitas morfologi, yaitu kualitas A, B, C, dan D. Jumlah koleksi yang dikoleksi dianalisis menggunakan metode *Anova*.

Hasil penelitian diperoleh bahwa kualitas morfologi oosit tidak berbeda signifikan ($P > 0,05$) di antara tiga kelompok suhu. Dari penelitian ini dapat disimpulkan bahwa suhu media transportasi ovarium sapi tidak mempengaruhi kualitas morfologi oosit *in vitro*, namun secara deskriptif terlihat bahwa suhu 37°C memberikan presentase oosit kualitas A paling tinggi.

Kata kunci: ovarium, suhu media transportasi, kualitas morfologi oosit

ABSTRACT

THE EFFECT OF TRANSPORT MEDIUM TEMPERATURE OF BOVINE OVARIES ON MORPHOLOGICAL QUALITY OF OOCYTES IN VITRO

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In vitro embryo transfer was a method to improve the farm animal production. Embryo production needed an oocyte from the ovaries that taken from slaughterhouse. Due to limited equipment or long laboratory distance, it was necessary to find a method that could keep oocyte viability for maturation and fertilization. Temperature was a factor that could affect the oocyte quality because of its sensitivity. The aim of this research was to find out the effect of transport medium temperature of bovine ovaries on morphological quality of oocytes in vitro.

Ovaries had taken from slaughterhouse, then washed by 0,9% physiological NaCl that added by antibiotic. Ovaries were divided into three groups of treatments. The treatments (temperature, T) were: T1 4°C medium temperature of transport, T2 25° medium temperature of transport, and T3 37°C medium temperature of transport. Ovaries were taken, placed in container to be delivered to laboratory. Oocytes were collected by aspiration method using 18 gauge needle attached to 10 mililiter of disposable syringe. Oocyte were observed under stereomicroscope to be classified according to the morphological quality, A, B, C, and D. The number of collected oocytes were analyzed using Anova method.

Result of the study showed that there was no significant difference ($P>0,05$) among the means of the three groups. From the research, concluded that transport medium temperature of bovine ovaries didn't impact the quality of oocyte morphology in vitro, but there was evidence that 37°C group having the highest mean in class A oocyte.

Key words: ovaries, temperature of transportation medium, oocyte morphological quality