

ABSTRAK

PENGARUH VARIASI SUHU MEDIA TRANSPORTASI TERHADAP KUALITAS SPERMATOZOA KAUDA EPIDIDIMIS KUCING

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Satwa liar famili Felidae akhir-akhir ini semakin mengalami penurunan populasi, sehingga diperlukan konservasi. Preservasi dan teknologi reproduksi seperti inseminasi buatan dapat mendukung pelestarian genetik, namun koleksi semen Felidae liar sulit dilakukan sehingga kucing digunakan sebagai model karena kesamaan sistem reproduksi dan populasinya. Kualitas spermatozoa sangat dipengaruhi kondisi penanganan, khususnya suhu selama transportasi sampel, sementara informasi mengenai suhu optimum untuk mempertahankan kualitas spermatozoa pada kucing masih terbatas, sehingga diperlukan penelitian untuk menentukan suhu transportasi yang tepat. Materi utama yang digunakan adalah 22 buah testis kucing jantan yang dipisahkan menjadi 2 kelompok dengan perlakuan suhu transportasi 37°C dan suhu 25°C. Kauda epididimis kucing disayat dan dicacah dalam *Phosphate Buffered Saline* (PBS). Penilaian spermatozoa kucing dilakukan dengan mikroskopis yang meliputi evaluasi motilitas individu, viabilitas, dan enumerasi atau konsentrasi spermatozoa. Data penelitian dianalisis secara statistik dengan menggunakan *Independent Sample T-test* pada program JASP versi 0.96.0. Hasil penelitian menunjukkan kecenderungan perbedaan namun tidak signifikan ($p > 0.05$) pada motilitas individu, viabilitas, dan enumerasi, baik dalam perlakuan suhu 37°C maupun suhu 25°C. Kesimpulan dari penelitian ini adalah suhu transportasi testis dan epididimis tidak berpengaruh terhadap motilitas individu, viabilitas, serta enumerasi.

Kata kunci: kauda epididimis, kualitas spermatozoa, kucing, suhu media.

ABSTRACT

EFFECT OF TRANSPORT MEDIUM TEMPERATURE VARIATIONS ON THE QUALITY OF FELINE CAUDA EPIDIDYMIS SPERMATOZOA

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Wild felids of the family Felidae have experienced a population decline, making conservation necessary. Preservation and reproductive technologies such as artificial insemination can support genetic preservation; however, collecting semen from wild Felidae is difficult, so cats are used as a model due to the similarity of their reproductive system and their available population. Sperm quality is strongly influenced by handling conditions, particularly the temperature during sample transport, whereas information on the optimal transport temperature to maintain sperm quality in cats remains limited; therefore, research is needed to determine the appropriate transport temperature. This study used 22 testes from male cats, divided into two groups with transport temperature treatments of 37°C and 25°C. Cauda epididymides were sliced and minced in Phosphate Buffered Saline (PBS). Spermatozoa evaluation was conducted microscopically, including assessment of individual motility, viability, and sperm enumeration or concentration. Statistical analysis was performed using an Independent Sample T-test in JASP version 0.96.0. The results showed a tendency toward differences but not significant ($p > 0.05$) in individual motility, viability, and sperm enumeration, in both the 37°C and 25°C treatments. The conclusion of this study is that transport temperature does not affect individual motility, viability, and enumeration.

Key words: cauda epididymis, sperm quality, feline, media temperature.