ABSTRAK

Latar belakang : Buah alpukat merupakan salah satu buah yang mengandung senyawa flavonoid, vitamin E, dan asam askorbat yang berperan sebagai antiosidan. Penelitian ini bertujuan untuk mengetahui pengaruh jus buah alpukat (*Persea americana* M.) terhadap motilitas spermatozoa tikus yang dipapar obat nyamuk elektrik.

Metode : Penelitian eksperimen dengan rancangan *post test only control group design* ini menggunakan 25 ekor Tikus Putih Jantan (*Rattus norvegicus*) Galur Wistar umur ± 90 hari dengan berat 200 gram sebanyak 25 ekor dan sudah di adaptasikan. Subjek dibagi dalam 5 kelompok yaitu kelompok K1 diberi aquades dan pakan standar, kelompok K2 diberi aquades, pakan standar dan di papar obat nyamuk selama 8 jam, serta kelompok perlakuan K3, K4, dan K5 diberi aquades, pakan makan standar, di papar obat nyamuk elektrik selama 8 jam, kemudian diberi jus buah alpukat dosis 25%, 50%, dan 100% sebanyak 0,6 ml, perlakuan dilakukan selama 44 hari dan pada hari ke 45 dilakukan terminasi. Efek antioksidan jus buah alpukat diukur dengan menghitung jumlah motilitas setiap tikus. Data dianalisis menggunakan uji Anova satu arah dan dilanjutkan dengan uji LSD (*Least Significant Different*).

Hasil : Hasil uji one way anova diperoleh nilai p = 0,046 ($p< 0,05$) menunjukkan terdapat perbedaan rerata jumlah motilitas pada kelima kelompok. Hasil uji LSD menunjukkan perbedaan yang signifikan antara kelompok perlakuan K5 dengan kelompok K2, serta kelompok perlakuan K1 dengan K2 dan K3 ($p< 0,05$).

Kesimpulan : Penelitian ini menunjukkan bahwa jus buah alpukat memiliki efek antioksidan terhadap motilitas spermatozoa tikus efektif pada kelompok perlakuan dosis 100%.

Kata kunci : antioksidan, jus buah alpukat, motilitas spermatozoa

ABSTRACT

Background : *Avocado (Persea americana M.) has been show to have Flavonoid, Vitamin E, and ascrobatic acid which activity as antioxidant. This study to determine the effect of avocado juice (Persa a mericana M.) on sperm motility in rats ekposed to mosquito electronic repellent smoke.*

Methods : *An experimental study with post test only control group design with 25 white male Rats (Rattus Norvegicus) Wistar strain. The age of the Rats is ±90 days with 200 grams of weight and has been already adapted. The subjects were divided into 5 groups. They are K1 was treated with aquades and standard food, K2 was treated aquades, standard food, and electrical electrical repellent during 8 hours , while groups K3, K4, K5 was treated with aquades, standard food, electrical electrical repellent, and 0.6ml avocado juice in various concentration (25%, 50%, 100%). The treatment was given over 44 days and on the 45 day the subjects will be terminated. The effect of antioxidant on avocado juice was measured by observing the sperm motility on every Rat. The data were analyzed by using One Way Anova test and were continued by using Least Significant Different (LSD).*

Result : *One Way Anova test result showed that there is difference of the average number of sperm motility on each group with the value of $p=0.046$ ($p<0.05$). LSD result showed that there are significant difference between K5 and K2, as well as K1 with K2 and K3 ($p=0.05$).*

Conclusion : *This study shows that avocado juice has an effective effect as antioxidant on Rats sperm motility on groups which was treated by 100% of avocado juice.*

Key words : *antioxidant, avocado juice, sperm motility.*