

## INTISARI

**Latar Belakang** : penggunaan obat nyamuk semakin banyak diminati oleh masyarakat. Hal tersebut dibuktikan dengan adanya inovasi terbaru dari obat nyamuk spray yaitu one push. Obat nyamuk spray dan one push mempunyai perbedaan dalam kandungan zat aktif. Obat nyamuk spray mengandung zat aktif golongan sifultrin, praletrin dan d-aletrin, sedangkan one push mengandung zat aktif transfultrin. Zat aktif ini belum tentu untuk sistem pernafsan, sehingga diperlukan penelitian mengenai pengaruh obat nyamuk spray dan obat nyamuk one push terhadap perubahan histologi pulmo *Rattus norvegicus*.

**Metode** : Desain penelitian eksperimental murni dengan *post-test only control group design*. Subjek penelitian adalah 30 ekor tikus *Rattus norvegicus* berusia 2 bulan galur *Wistar* terbagi menjadi 6 ekor pada setiap kelompok kontrol (K), one push 5 menit (P1), one push 10 menit (P2), spray 5 menit (P3) dan spray 10 menit (P4). Perlakuan dilakukan selama 60 hari yang dilanjutkan pembedahan untuk pembuatan preparat dan uji histopatologi pulmo. Data dianalisis dengan uji statistik *One Way Anova* dilanjutkan dengan uji *post-hoc* Tukey.

**Hasil penelitian** : ketebalan septum interalveolaris dan diameter alveolus menunjukkan perbedaan yang signifikan ( $p < 0,05$ ) antara kelompok kontrol (K) dengan kelompok (P1), (P2), (P3), dan (P4)

**kesimpulan** : obat nyamuk spray dan one push berpengaruh terhadap negatif terhadap gambaran histologi pulmo

**kata kunci** : one push - obat nyamuk spray – histologi pulmo

## ABSTRACT

**Background** : The use of mosquitos repellent has been frequently in demand by society. This is proven by its new innovation developed in the new kind of mosquito spray repellent is one push. There are difference between conventional spray repellent in terms of their active substances. Spray repellent contains *sifultrin, praletrin, and d-alletrin*, meanwhile, in one push repellent it contains *transfultrin*. These active substance are not yet warranted to be safe for human respiration system, so that a thorough experiment concerning the effects of using spray repellent and one push repellent to changes in pulmonary histology of *Rattus norvegicus* is needed.

**Method** : using true eperiment by doing post test only control group design method. Subject experiment are 30 Wistar rats (*Rattus norvegicus*) aged 2 months old divided into 6 on each control group (K), 5 minutes one push (P1), 10 minutes one push (P2), 5 minutes spray (P3), and 10 minutes spray (P4). Treatments are done 60 days followed with surgical operation to take samples and running a histopatological pulmo test. Result are then analysed using One Way Anova statistic test followed by post hoc Tukey test.

**Result** : thickness of septum interalveolaris and alveolus diameter showed significant ( $P < 0,005$ ) between control group (K) with group (P1), (P2), (P3), and (P4).

**Conclusion** : mosquito conventional spray repellent and one push repellent give negative effects to pulmonary histology representation.

**Keyword** : one push – mosquito spray – histology pulmo