

**EFEK PEMBERIAN SARI MARKISA UNGU (*Passiflora edulis var edulis*)
BERBAGAI DOSIS TERHADAP GAMBARAN HISTOPATOLOGI SEL HEPAR
TIKUS WISTAR (*Rattus norvegicus*)
Studi Pada Uji Toksisitas Subkronis**

ABSTRAK

Latar Belakang: Penelitian mengenai kandungan dan manfaat dari markisa ungu telah banyak diteliti. Pengujian toksisitas secara akut dari sari markisa ungu terhadap histopatologi organ hepar sudah pernah dilakukan sebelumnya. Penelitian ini dilakukan sebagai penelitian lanjutan untuk mengetahui keamanan sari markisa ungu sebelum dikembangkan lebih lanjut. **Tujuan:** Mengetahui pengaruh pemberian sari markisa ungu (*Passiflora edulis var edulis*) berbagai dosis terhadap gambaran histopatologis sel hepar tikus (*Rattus norvegicus*) galur Wistar pada uji toksisitas subkronis. **Metode:** Penelitian eksperimental dengan *post test only with control group design*. Sejumlah 50 ekor tikus jantan dibagi menjadi 5 kelompok dengan kelompok I merupakan kelompok kontrol, kelompok II, III, IV, dan V kelompok perlakuan dosis sari markisa ungu 4,2 ml /200g/hari, 8,4 ml/200g/hari, 12,6 ml/200g/hari, dan 16,8 ml/200g/hari selama 28 hari. **Hasil:** Uji Kruskal-Wallis pada semua kelompok menunjukkan hasil dari aktivasi sel kupffer dan dilatasi sinusoid yaitu $p=0,72$ & $p=0,70$, sedangkan untuk vakuolisasi sitoplasma, inflamasi porta, inflamasi lobus dan nekrosis menunjukkan hasil berturut-turut $p=0,016$, $p=0,001$, $p=0,00$, dan $p=0,003$. Uji Mann Whitney vakuolisasi sitoplasma menunjukkan hasil $p=0,004$ pada kelompok I&V. Uji Mann Whitney inflamasi porta menunjukkan hasil $p=0,001$ pada kelompok I&IV dan I&III. Uji Mann Whitney inflamasi lobus menunjukkan hasil $p=0,001$ pada kelompok I&V. Uji Mann Whitney Nekrosis menunjukkan hasil $p=0,008$ pada kelompok I&II, I&IV, dan I&V. **Kesimpulan:** Pemberian sari markisa ungu berbagai dosis berpengaruh secara signifikan terhadap vakuolisasi sitoplasma, inflamasi porta, inflamasi lobus, dan nekrosis tikus Wistar pada uji toksisitas subkronis.

Kata Kunci: Histopatologi hepar, *passiflora edulis var edulis*, uji toksisitas subkronis

**THE EFFECT OF PURPLE PASSION FRUIT JUICE (*Passiflora edulis* var *edulis*)
VARIOUS DOSAGE ON HISTOPATHOLOGICAL OF THE LIVER IN RAT
WISTAR STRAIN (*Rattus norvegicus*)
Study on Subchronic Purple Passion Fruit Toxicity Test**

ABSTRACT

Background: Research on the ingredients and benefits of purple passion fruit has been approved. Research on the toxicity of purple passion fruit juice against liver organ histopathology has been done before. This research was conducted as a follow-up study to determine the safety of purple passion fruit juice before further development.

Objective: To determine the benefits of giving purple passion fruit juice (*Passiflora edulis* var *edulis*) various doses to the histopathological differences in rat liver cells (*Rattus norvegicus*) of Wistar strain in subchronic toxicity tests. **Methods:** An experimental study with a post test only with a control group design. Representing 50 rats were divided into 5 groups. Group I was given aquades as a control group. The administration of passion fruit juice to experimental animals was carried out in groups II, III, IV, and V received passion fruit juice respectively at a dose of 4,2 ml / 200gBB / day, 8,4 ml / 200gBB / day , 12,6 ml / 200gBB / day, and 16,8 ml / 200gBB / day for 28 days. **Results:** Kruskal-Wallis test all groups shows the results of Kupffer cell activation and sinusoid dilatation $p=0,72$ & $p=0,70$. While for cytoplasmic vacuolization, portal inflammation, lobe inflammation and necrosis the consecutive results show $p=0,016$, $p=0,001$, $p=0,00$, and $p=0,003$. The Mann Whitney cytoplasmic vacuolization test shows $p=0,004$ in groups I&V. The Mann Whitney test of portal inflammation shows $p=0,001$ in groups I&IV and I&III. The Mann Whitney test of lobe inflammation shows $p=0,001$ in groups I&V. The Mann Whitney test of Necrosis shows $p=0,008$ in groups I&II, I&IV, and I&V. **Conclusion:** The application of purple passion fruit juice various doses have a significant effect on cytoplasmic vacuolization, portal inflammation, lobe inflammation, and necrosis of Wistar rats in the subchronic toxicity test.

Keywords: Histopathology liver, *passiflora edulis* var *edulis*, subchronic toxicity test.