

ABSTRACT

Background: Pain is often the main symptom in many medical conditions and is one reason to get medical help. Pain is usually treated with an analgesic drug that is a pain reliever. Ethanol extract of papaya leaves (*Carica Papaya L.*) and ethanol extract of sunflower petals (*Helianthus Annuus L.*) are also effective as analgesics. This study aims to determine whether there are differences in the analgesic effect between ethanol extract of papaya leaves (*Carica Papaya L.*) and ethanol extract of sunflower petals (*Helianthus Annuus L.*).

Methods: This study is a quasi-experimental test using a heat stimulation method in the form of a temperature of 55° C and given 1% of 10 ml/kgBB acetic acid through intraperitoneal as pain inducer. 24 mice were divided into 4 treatment groups. Group I was given a suspension of ethanol extract of papaya leaves with the dose of 12 mg/20gBB, group II was given a suspension of ethanol extract of sunflower petal with the dose of 30 mg/20gBB, group III was given a suspension of paracetamol with the dose of 60 mg/kgBB as a positive control and group IV was given a suspension of distilled water with the dose of 0.3 ml as negative control. After the treatment, the analgesic effect was observed by observing the amount of mice's stretching in the form of licking the legs or jumping when the mice were placed on a hot plate with a temperature of 55°C in the 30th, 60th, 90th and 120th.

Result: The amounts of mice's stretching (Average \pm SE) in the 30th minute are as follow: group I was 5.83 \pm 1.40, group II was 4.20 \pm 0.66, group III was 10.33 \pm 1.60, group IV was 18.50 \pm 2.23. In the 60th minute, group I was 2.50 \pm 0.88, group II was 7.50 \pm 0.88, group III was 7.83 \pm 1.19, and group IV was 16.16 \pm 2.74. In the 90th minute, group I was 6.83 \pm 1.10, group II was 10.00 \pm 1.23, group III was 6.16 \pm 1.68, and group IV was 14.33 \pm 1.83. In the 120th minute, group I was 9.16 \pm 1.19, group II was 7.50 \pm 1.38, group III was 7.50 \pm 1.38, and group IV was 19.33 \pm 4.20.

Conclusion: The results show that the ethanol extract of papaya leaves (*Carica Papaya L.*) and ethanol extract of sunflower petals (*Helianthus Annuus L.*) had an analgesic effect with insignificant differences.

Keywords: Analgesic, Papaya Leaves (*Carica Papaya L.*), Sunflower Petals (*Helianthus Annuus L.*)

INTISARI

Latar belakang: Rasa sakit atau nyeri seringkali menjadi gejala utama dalam banyak kondisi medis dan merupakan salah satu alasan untuk mendapatkan bantuan medis. Nyeri biasanya diatasi dengan obat analgesik yang merupakan penghilang rasa nyeri. Daun pepaya (*Carica papaya* L.) dan kelopak bunga matahari (*Helianthus annuus* L.) juga berkhasiat sebagai analgesik. Penelitian ini bertujuan untuk mengetahui apakah terdapat perbedaan efek analgesik antara ekstrak etanol daun pepaya (*Carica papaya* L.) dengan ekstrak etanol kelopak bunga matahari (*Helianthus annuus* L.).

Metode: Penelitian ini merupakan uji *quasi eksperimental* menggunakan metode rangsang panas berupa suhu 55⁰C dan diberi asam asetat 1% 10 ml/kgBB secara intraperitoneal sebagai penginduksi nyeri. Mencit sebanyak 24 ekor dibagi menjadi 4 kelompok perlakuan. Kelompok I diberi suspensi ekstrak etanol daun pepaya dosis 12 mg/20gBB, kelompok II diberi suspensi ekstrak etanol kelopak bunga matahari dosis 30 mg/20gBB, kelompok III diberi suspensi paracetamol dosis 60 mg/kgBB sebagai kontrol positif dan kelompok IV diberi suspensi aquades dosis 0,3 ml sebagai kontrol negatif. Setelah diberi perlakuan, kemudian diamati efek analgesiknya dengan mengamati jumlah geliat berupa menjilat kaki atau meloncat saat mencit diletakkan diatas hot plate dengan suhu 55⁰C pada menit ke 30, 60, 90, dan 120.

Hasil: Jumlah geliat mencit (Rata-rata ± SE) pada menit ke 30 kelompok I 5,83±1,40, kelompok II 4,20±0,66, kelompok III 10,33±1,60, kelompok IV 18,50±2,23. Pada menit ke 60 kelompok I 2,50±0,88, kelompok II 7,50±0,88, kelompok III 7,83±1,19, kelompok IV 16,16±2,74. Pada menit ke 90 kelompok I 6,83±1,10, kelompok II 10,00±1,23, kelompok III 6,16±1,68, kelompok IV 14,33±1,83. Pada menit ke 120 kelompok I 9,16±1,19, kelompok II 7,50±1,38, kelompok III 7,50±1,38, kelompok IV 19,33±4,20.

Kesimpulan: Dari hasil penelitian didapatkan bahwa ekstrak etanol daun pepaya (*Carica papaya* L.) dan ekstrak etanol kelopak bunga matahari (*Helianthus annuus* L.) memiliki efek analgesic dengan perbedaan yang tidak signifikan.

Kata Kunci: Analgesik, Daun Pepaya (*Carica Papaya* L.), Kelopak Bunga Matahari (*Helianthus Annuss* L.)