

IDENTIFICATION OF CHEMICAL DRUGS IN TRADITIONAL MEDICINES CIRCULATING IN THE CITY OF KUPANG USING THIN LAYER CHROMATHOGRAPHY

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ABSTRACT

Background: *Jamu is a traditional herbal medicine commonly used to support health. However, concerns have arisen regarding the safety and authenticity of jamu products circulating in the market, particularly due to the illicit addition of pharmaceutical substances. The aim of this study was to determine the presence of pharmaceutical compounds—mefenamic acid, dexamethasone, and allopurinol—in traditional jamu preparations sold in Kupang City.* **Methods:** *A qualitative analysis was conducted using Thin Layer Chromatography (TLC), comparing the R_f values of standard references with those of the samples. The samples consisted of five types of jamu that were distributed in Kupang City without official distribution permits.* **Results:** *The color reaction test indicated that Jamu A tested positive for mefenamic acid, Jamu B for dexamethasone, and Jamu C for allopurinol. Based on these preliminary results, the three jamu samples were further analyzed using TLC. One sample, Jamu A (marketed for menstrual pain relief), was confirmed to contain mefenamic acid, with the R_f values of the standard and sample being 0.76 and 0.77; 0.76 and 0.78 respectively.* **Conclusion:** *The jamu marketed for menstrual pain relief was confirmed to contain mefenamic acid. Meanwhile, the jamu products for weight gain, gout, and muscle aches yielded negative results for the tested pharmaceutical compounds.*

Keywords: *Pharmaceutical Compounds, Traditional Herbal Medicine, Thin Layer Chromatography*

IDENTIFIKASI BAHAN KIMIA OBAT DALAM JAMU RACIKAN YANG BEREDAR DI KOTA KUPANG MENGGUNAKAN KROMATOGRAFI LAPIS TIPIS

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ABSTRAK

Latar belakang: jamu merupakan salah satu obat tradisional untuk membantu menjaga kesehatan. Munculnya berbagai tantangan terkait keamanan dan keaslian produk jamu yang beredar dengan adanya penambahan bahan kimia obat dalam jamu. **Tujuan:** untuk mendapatkan keberadaan bahan kimia obat asam mefenamat, deksametason dan allopurinol dalam jamu racikan yang beredar di Kota Kupang. **Metode:** analisa yang digunakan adalah uji kualitatif menggunakan KLT dengan membandingkan nilai Rf antara baku pembanding dan sampel. Sampel yang digunakan adalah 5 jenis jamu yang beredar di Kota Kupang dan tidak memiliki izin edar. **Hasil:** uji reaksi warna menunjukkan jamu A positif asam mefenamat, jamu B positif deksametason dan jamu C positif allopurinol. Berdasarkan hasil tersebut, ketiga jamu dilanjutkan dengan uji KLT sehingga terdapat 1 sampel yang positif mengandung asam mefenamat yaitu jamu A/ jamu Pereda nyeri haid dengan Rf baku pembanding 0,76 dan Rf sampel berturut turut 0,77, 0,76, 0,78. **Kesimpulan:** Jamu pereda nyeri haid positif mengandung asam mefenamat sedangkan jamu penggemuk badan, asam urat dan pegal linu memberikan hasil yang negatif.

Kata kunci: Bahan Kimia Obat, Jamu Racikan, Kromatografi Lapis Tipis