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THE IDENTIFICATION OF PHENYBUTAZONE CONTENT IN JAMU PEGAL LINU PREPARATIONS CIRCULATING IN MADURA AREA BY USING UV-VIS SPECTROPHOTOMETRIC METHOD

ABSTRACT

Jamu is a traditional medicine that is still widely used by Indonesian, including in Madura region. However, in some cases it has been found that there is an illegal addition of medicinal chemicals to increase the therapeutic effect. One medicinal chemicals that is often misused is phenylbutazone, which is classified as Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) and has serious side effects. This study aims to identify the content of phenylbutazone in jamu pegal linu preparations circulating in Madura using Thin Layer Chromatography (TLC) and UV-Vis Spectrophotometry methods.

The study was conducted on 16 jamu samples from four districts in Madura. The Thin Layer Chromatography test results showed that three samples, namely Pamekasan B, Bangkalan D and Sumenep C, had Rf values identical to the phenylbutazone standard, indicating the presence of the medicinal chemicals. Quantitative tests using UV-Vis spectrophotometry showed that some samples were positive for phenylbutazone, with percentage levels varying from 0.0064% to 0.6117%.

Despite the low levels detected, the presence of phenylbutazone remains a concern due to the health risks it poses. Therefore, supervision of herbal medicine circulation needs to be improved and education to the public about the dangers of consuming non-standardized herbal medicine needs to be intensified.

Keywords: Herbal Medicine, Phenylbutazone, Medicinal Chemical, UV-Vis Spectrophotometry, Thin Layer Chromatography (TLC).