Uji aktivitas antibakteri ekstrak air herba sambiloto herba pegagan daun beluntas daun sirsak dan daun nanas kerang terhadap mycobacterium tuberculosis h37rv dan multidrug resistant mycobacterium tuberculosis = Antituberculosis activity of aqueous extract of sambiloto herbs pegagan herbs beluntas leaves soursop leaves and oyster plant leaves againts h37rv strain of mycobacterium tuberculosis and multidrug resistant strain of mycobacterium tuberculosis

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Abstrak

Tuberkulosis merupakan penyakit yang masih menjadi ancaman global. Lamanya waktu pengobatan dan toksisitas yang cukup tinggi mendorong penemuan obat alternatif yang berperan sebagai komplemen maupun pengganti obat antituberkulosis. Sambiloto, pegagan, beluntas, sirsak dan nanas kerang dipercaya masyarakat sebagai obat tradisional untuk mengobati tuberkulosis.

Penelitian ini bertujuan untuk menguji aktivitas antituberkulosis ekstrak air herba sambiloto, herba pegagan, daun beluntas, daun sirsak dan daun nanas kerang terhadap isolat Mycobacterium tuberculosis strain H37Rv dan strain Multidrug Resistant. Ekstraksi dilakukan dengan metode maserasi menggunakan air, dilanjutkan dengan penapisan fitokimia. Pengujian aktivitas antituberkulosis dilakukan dengan metode proporsi pada konsentrasi 2,5; 5; dan 10 mg/mL dengan rifampisin sebagai kontrol positif dan menggunakan medium Lowenstein Jensen. Pengamatan dilakukan setiap minggu sampai minggu ke-4, data yang didapatkan dianalisis secara deskriptif.

Hasil penelitian menunjukkan kelima ekstrak memiliki kemampuan menghambat pertumbuhan Mycobacterium tuberculosis baik strain H37Rv maupun strain Multidrug Resistant. Ekstrak air daun beluntas mampu membunuh Mycobacterium tuberculosis strain H37Rv dan strain Multidrug Resistant pada konsentrasi 10 mg/mL. Ekstrak air nanas kerang mampu membunuh Mycobacterium tuberculosis strain H37Rv dan strain Multidrug Resistant pada konsentrasi 5 mg/mL.
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Tuberculosis is a disease that remains a global threat. The length of treatment time and Fairly high toxicity of chemicals consumed drug discovery encourage alternative drug that acts as a complement or substitute for antituberculosis drugs. Sambiloto, pegagan, beluntas, soursop and oyster plants are plants that public trust as a traditional medicine to treat tuberculosis.

This study aimed to test the antituberculosis activity of aqueous extract of sambiloto herbs, pegagan herbs, beluntas leaves, soursop leaves and oyster plant leaves against isolates of Mycobacterium tuberculosis strains H37Rv and Multidrug Resistant strain of Mycobacterium tuberculosis. Extraction is done by maceration method using aquadest, followed by phytochemical screening. Antituberculosis activity assays performed with proportion method at a concentration of 2,5; 5; and 10 mg/mL with rifampicin as a positive control and using Lowenstein Jensen medium. Observations were made every week until week-4, the data

were analyzed descriptively.

The results showed that five of extract could inhibit the growth of Mycobacterium tuberculosis strains H37Rv and Multidrug Resistant strains. Aqueous extract of beluntas leaves could kills Mycobacterium tuberculosis strains H37Rv and Multidrug Resistant strain at concentration of 10 mg/mL. Aqueous extract of oyster plant leaves kills Mycobacterium tuberculosis strain H37Rv and Multidrug Resistant strains at a concentration of 5 mg/mL.