ABSTRAK

Kandidiasis ialah infeksi jamur yang ada di Indonesia. Kandidiasis bisa menyerang mulut, vagina, kuku, kulit, bronkus, serta paru-paru. Penyakit jamur bersifat akut juga subakut yang disebabkan *Candida albicans*. Untuk mendiagnosis infeksi jamur, teknik identifikasi berbasis kultur telah muncul sebagai gold standart untuk diagnosis infeksi jamur. Teknologi molekuler saat ini memungkinkan pengujian *Real Time Polymerase Chain Reaction* (RT-PCR) guna mendeteksi jamur *Candida albicans* dengan cepat. Wilayah ITS2 ialah penanda yang biasanya dipakai untuk banyak kelompok jamur. Tujuan penelitian guna mengetahui adanya gen ITS2 *Candida albicans* pada sputum penderita *Tuberculosis* (TB) menggunakan metode RT-PCR.

Penelitian ini termasuk penelitian deskriptif kuantitatif memakai metode *cross sectional study* yakni sampel sputum penderita *Tuberculosis* (TB) di Rumah Sakit Pusat TNI Angkatan Laut (RSPAL) Dr. Ramelan Surabaya. Penelitian dilaksanakan pada bulan Februari sampai Mei 2023 di Laboratorium Mikrobiologi dan Biologi Molekuler Teknologi Laboratorium Medis Poltekkes Kemenkes Surabaya. Selanjutnya dilakukan observasi deteksi gen ITS2 *Candida albicans* menggunakan metode RT-PCR.

Hasil penelitian yang sudah dilakukan dari 30 sampel sputum penderita *Tuberculosis* (TB) ditemukan 19 sampel dengan hasil positif jamur *Candida sp*. serta dari 19 sampel tersebut semua sampel terdeteksi gen ITS2 jamur *Candida albicans* dengan memakai metode RT-PCR, hingga didapatkan presentase 63,34% dari total 30 sampel.

Kata kunci : *Candida albicans*, Tuberculosis, gen ITS2, RT-PCR.

ABSTRACT

Candidiasis is a fungal infection that occurs in Indonesia. Candidiasis can attack the mouth, vagina, nails, skin, bronchi and lungs. Acute and subacute fungal disease caused by Candida albicans. For diagnosing fungal infections, culture-based identification techniques have emerged as the gold standard for diagnosing fungal infections. Current molecular technology allows Real Time Polymerase Chain Reaction (RT-PCR) testing to quickly detect the Candida albicans fungus. The ITS2 region is a commonly used marker for many groups of fungi. The aim of the research was to determine the presence of the Candida albicans ITS2 gene in the sputum of Tuberculosis (TB) sufferers using the RT-PCR method.

This research is a quantitative descriptive study using a cross sectional study method, namely sputum samples from Tuberculosis (TB) sufferers at the Central Hospital of the Indonesian Navy (RSPAL) Dr. Ramelan Surabaya. The research was carried out from February to May 2023 at the Microbiology and Molecular Biology Laboratory, Medical Laboratory Technology, Health Polytechnic, Ministry of Health, Surabaya. Next, observations were made for the detection of the Candida albicans ITS2 gene using the RT-PCR method.

The results of research conducted from 30 sputum samples from Tuberculosis (TB) sufferers found 19 samples with positive results for Candida sp. and from these 19 samples, all samples detected the ITS2 gene of the Candida albicans fungus using the RT-PCR method, until a percentage of 63.34% was obtained from a total of 30 samples.

***Keywords**: Candida albicans, Tuberculosis, ITS2 gene, RT-PCR,*