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Hubungan Nilai Positivitas Glukosa Dengan Pertumbuhan Jamur *Candida albicans* Pada Urine Penderita Diabetes Melitus Di Puskesmas Simpung Kota Bandar Lampung

xvi + 35 halaman, 6 gambar, 5 tabel, dan 10 lampiran

ABSTRAK

Diabetes melitus disebabkan karena ketidakmampuan pankreas untuk menghasilkan insulin dalam jumlah yang memadai. Manifestasi klinis dari DM yaitu glukosuria dimana terdapat glukosa di dalam urine yang ditandai dengan positifnya glukosa urine, sehingga glukosa dalam urine ini dimanfaatkan oleh jamur (khususnya *Candida albicans*) untuk tumbuh sehingga dapat menyebabkan kandidiasis. Tujuan penelitian ini mengetahui hubungan nilai positivitas glukosa dengan pertumbuhan jamur *Candida albicans* pada urine penderita diabetes melitus di Puskesmas Simpung Kota Bandar Lampung. Jenis penelitian ini observasional analitik dengan desain *cross sectional*. Penelitian dilakukan di Laboratorium Parasitologi/Mikologi Poltekkes Kemenkes Tanjungpur pada 19-28 Mei 2025 dan didapatkan sebanyak 30 sampel yang memenuhi kriteria. Penelitian dilakukan secara makroskopis dan mikroskopis. Berdasarkan pemeriksaan glukosa urine dan *Candida albicans*, dari 5 sampel positif 1 (+) glukosa urine terdapat 3 sampel positif *Candida albicans*, 2 sampel positif 2 (++) glukosa urine seluruhnya positif *Candida albicans*, 5 sampel positif 3 (+++) glukosa urine terdapat 4 sampel positif *Candida albicans*, 8 sampel positif 4 (+++++) glukosa urine seluruhnya positif *Candida albicans*, dan 10 sampel lainnya negatif glukosa urine maupun *Candida albicans*. Dianalisis menggunakan uji *Chi-square*, menunjukkan ada hubungan nilai positivitas glukosa dengan pertumbuhan jamur *Candida albicans* pada urine penderita diabetes melitus di Puskesmas Simpung Kota Bandar Lampung dengan *p-value* = 0.000 (<0.05).

Kata Kunci : Diabetes melitus, *Candida albicans*, glukosa urine, glukosuria, kandidiasis

Daftar Pustaka : 62 (1998-2024)

**POLTEKKES KEMENKES TANJUNGKARANG
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The Relationship Between Glucose Positivity Values and the Growth of Candida albicans Fungi in the Urine of Diabetes Mellitus Patients at the Simpura Health Center Bandar Lampung City

xvi + 35 pages, 6 figures, 5 tables, and 10 appendices

ABSTRACT

Diabetes mellitus is caused by the inability of the pancreas to produce adequate amounts of insulin. The clinical manifestation of DM is glucosuria where there is glucose in the urine which is characterized by positive urine glucose, so that the glucose in the urine is utilized by fungi (especially Candida albicans) to grow so that it can cause candidiasis. The purpose of this study was to determine the relationship between glucose positivity values and the growth of Candida albicans fungi in the urine of diabetes mellitus patients at the Simpura Health Center, Bandar Lampung City. This type of research is observational analytic with a cross-sectional design. The study was conducted at the Parasitology/Mycology Laboratory of the Ministry of Health Polytechnic of Tanjungkarang on May 19-28, 2025 and 30 samples were obtained that met the criteria. The study was conducted macroscopically and microscopically. Based on urine glucose and Candida albicans examination, from 5 positive samples 1 (+) urine glucose there were 3 positive samples of Candida albicans, 2 positive samples 2 (++) urine glucose were all positive for Candida albicans, 5 positive samples 3 (+++) urine glucose there were 4 positive samples of Candida albicans, 8 positive samples 4 (+++++) urine glucose were all positive for Candida albicans, and 10 other samples were negative for urine glucose and Candida albicans. Analyzed using the Chi-square test, it showed that there was a relationship between glucose positivity values and the growth of Candida albicans fungus in the urine of diabetes mellitus patients at the Simpura Health Center, Bandar Lampung City with a p-value = 0.000 (<0.05).

Keywords : *Diabetes mellitus, Candida albicans, urine glucose, glucosuria, candidiasis*

References : *62 (1998-2024)*