TEPUNG TALAS SEBAGAI MEDIA ALTERNATIF PERTUMBUHAN *Candida albicans* dan *Aspergillus* sp.

Nur Indah Sari Amir[1], Sri Darmawati[2], Sri Sinto Dewi[2]

[1.] Program Studi D IV Analis Kesehatan Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.
[2.] Laboratorium Mikrobiologi Fakultas Ilmu Keperawatan dan Kesehatan Universitas Muhammadiyah Semarang.

ABSTRAK

Tepung talas mengandung karbohidrat dan protein yang dapat dimanfaatkan sebagai media alternatif pertumbuhan *Candida albicans* dan *Aspergillus* sp. Tujuan penelitian ini untuk mengetahui tepung talas pada konsentrasi 2%, 4%, 6% dan 8% sebagai media pertumbuhan *Candida albicans* dan *Aspergillus* sp. Metode penelitian yang digunakan adalah eksperimen menggunakan *Posstest-only Control Desingn*. Cara kultur media menggunakan metode *spread plate* (*Candida albicans*), dengan metode *single dot* (*Aspergillus* sp.). Pengamatan pertumbuhan *Candida albicans* dengan menghitung jumlah koloni pada setiap media, untuk *Aspergillus* sp. diukur diameter koloninya. Hasil rata-rata jumlah koloni *Candida albicans* pada media tepung talas konsentrasi 2%, 4%, 6% dan 8% berturut-turut 21 x 10^7 CFU/ml, 23.5 x 10^7 CFU/ml, 26.5 x 10^7 CFU/ml, 29.5 x 10^7 CFU/ml, pada media SDA (kontrol) sebanyak 24 x 10^6 CFU/ml, konsentrasi media tepung talas yang mendekati nilai kontrol yaitu 4% dan diameter *Aspergillus* sp. pada media tepung talas konsentrasi 2%, 4%, 6% dan 8% berturut-turut 20 mm, 24.25 mm, 26.50 mm, 28.50 mm, pada media SDA (kontrol) sebesar 27.75 mm, konsentrasi media tepung talas yang mendekati nilai kontrol yaitu 6%. Hasil uji statistik anova ada perbedaan bermakna konsentrasi media tepung talas terhadap jumlah koloni *Candida albicans* dan diameter koloni *Aspergillus* sp.

Kata Kunci: *Aspergillus* sp., *Candida albicans*, Tepung talas

TARO FLOUR AS A GROWTH ALTERNATIVE MEDIA FOR *Candida albicans* AND *Aspergillus* sp.

Nur Indah Sari Amir[1], Sri Darmawati[2], Sri Sinto Dewi[2]

[1.] Study Program of D IV Medical Laboratory Technology Faculty of Nursing and Health Science University of Muhammadiyah Semarang.
[2.] Microbiology Laboratory Faculty of Nursing Science University of Muhammadiyah Semarang.

ABSTRACT

Taro flour contains carbohydrates and proteins that can be used as an alternative medium for the growth of *Candida albicans* and *Aspergillus* sp. The purpose of this study was to determine taro flour at a concentration of 2%, 4%, 6% and 8% as a growth medium for *Candida albicans* and *Aspergillus* sp. The research method that used is an experiment using Posttest-only Control Design. How to culture the media using the spread plate method (*Candida albicans*), with the single dot method (*Aspergillus* sp.). Observation of the growth of *Candida albicans* by counting the number of colonies in each medium, for *Aspergillus* sp. measured by the diameter of the colonies. The average number of *Candida albicans* colonies in taro flour media concentrations of 2%, 4%, 6% and 8% sequentially 21 x 10^7 CFU/ml, 23.5 x 10^7 CFU/ml, 26.5 x 10^7 CFU/ml, 29.5 x 10^7 CFU/ml, on SDA media (control) was 24 x 10^7 CFU / ml, the concentration of taro flour media which approached to the control value was 4% and the diameter of *Aspergillus* sp. on taro flour media concentrated 2%, 4%, 6% and 8% sequentially 20 mm, 24.25 mm, 26.50 mm, 28.50 mm, on SDA media (control) was 27.75 mm, the concentration of taro flour media which approached to the control value was 6%. Anova statistical test results showed a significant difference in the concentration of taro flour media on the number of *Candida albicans* colonies and the diameter of the colony *Aspergillus* sp.

Keywords: *Aspergillus* sp., *Candida albicans*, Taro flour