

ABSTRACT

Erna Sugiarti, NIM : 1534017, 2015. The differences number of *Candida albicans* colonies on *Sabouraud Dextrose Agar* (SDA) medium dissolved by distilled water and bottled-drinking water. Bachelor Thesis of DIV Medical Analysis Study Program, Faculty of Medical Science, Universitas Katolik Musi Charitas Palembang.

Background : To culture *Candida albicans* colonies, the most common culture medium is *Sabouraud Dextrose Agar*. According to the Ministry of Health Regulation, Number of 43, year of 2013, the most commonly-used solvent on microbiology medium is distilled water. However, the price of distilled water is relatively expensive and only a small amount of laboratory has a distillation equipment to produce distilled water. Therefore, this research tried to substitute the use of distilled water with bottled-drinking water as a solvent on microbiology medium.

Method : The research was categorized as a true experiment with Posttest Only Design. The specific *Candida albicans* which had fulfilled the inclusion and exclusion criteria were chosen as the sample. To investigate the effect of the solvent of colonies growth, *Sabouraud Dextrose Agar* was dissolved with distilled water and bottled-drinking water. After dissolving the culture medium, *Candida albicans* was growth on specific *Sabouraud Dextrose Agar* with spread plate method and incubated at 25°C for 48 hours. The growth-colonies was then calculated and parametrically analyzed using *Paired t-test* with 95% of confidence level.

Result : The result represented the number of *Candida albicans* colonies and the experimental research has been repeated for 16 times to prove the repeatable result. The results showed that the average numbers of colonies on *Sabouraud Dextrose Agar* dissolved by distilled water are 31,25, while the other culture medium dissolved by bottled-drinking water only 28,75 colonies on average. According to *Paired Sample T-Test* which shows $p = 0,104 > 0,05$, there is no significant effect of solvent on *Candida albicans* colonies growth.

Conclusion : The research proved that there is no significant different number of *Candida albicans* colonies growth on *Sabouraud Dextrose Agar* which is dissolved by distilled water and bottled-drinking water.

Keywords : *Candida albicans*, distilled water, bottled-drinking water