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ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright<sup>©</sup> by Chiang Mai University All rights reserved Thesis Title

Effects of Oxytetracyclin and Hydrocortisone on Morphology, Physiology and Pathogenicity of Candida albicans.

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## Abstract

Antibiotic and steroid therapy have contributed to the increasing incidence and severity of clinical candidal infection. Ten isolates of <u>Candida albicans</u> were cultured in sabauraud's dextrose broth with terramycin or Solu cortef individually. Terramycin was incorporated in the concentration of 0 µg/ml to 1,000 µg/ml and Solu cortef in 0 µg/ml to 2,500 µg/ml. Solu cortef increased growth and chlamydospore production of <u>Candida albicans</u> greater than those found in control cultures. It was possible that antibiotic and corticosteroid directly stimulate the growth of <u>Candida in vitro</u>, The biochemical reaction of treated <u>Candida albicans</u> were changed when compared to the respective controls. Treated <u>Candida albicans</u> assimilated and fermented lactose whereas control could not. Amphotericin B sensitivity of treated isolates were higher than untreated. The

pathogenicity in mice by intraperitoneal injection in treated increased more than untreated. Necropsy of kidney, liver and heart of treated mice were visible, showed numerous localized abscess, few tiny white localized abscess and gave positive culture, whereas untreated ones showed few tiny white localized abscess and gave positive in kidney and liver. Fatality rate and pathological picture between male and female white mice were 3 different.

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