Thesis Title	Correlation of Intestinal Hyperpermeability and Seborrheic Dermatitis
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ABSTRACT

Background: Seborrheic dermatitis (SD) is considered one of the most frequent chronic inflammatory skin disorders. The etiology of seborrheic dermatitis is not fully understood but is known to involve various factors such as genetics, stress, drugs, neurological disorder, nutritional disorder, weather and immunity defect. An increased intestinal permeability or leaky gut has been proposed as possible culprits of seborrheic dermatitis but the evidence remain elusive. Many works on increased intestinal permeability in patients with atopic eczema are available. On the contrary, no data on increased intestinal permeability in patients with seborrheic dermatitis can be found. The lack of defined data on the intestinal permeability in patients with seborrheic dermatitis encourage to perform the present study.

Objective: To study the correlation between seborrheic dermatitis and intestinal permeability

Method: The study design was a cross-sectional study. Sixteen healthy volunteers and sixteen patients with a diagnosis of seborrheic dermatitis were recruited from the outpatient department (OPD), Mae Fah Luang University Hospital and by local advertisement. The diagnosis of seborhheic dermatitis is based on clinical features by dermatologist. 16 seborrheic dermatitis patients with mild to moderate severity evaluated by Seborrhea Areas Severity Index

(SASI score). Absorption of lactulose and mannitol was measured in 16 patients with seborrheic dermatitis and healthy control subjects by using intestinal permeability test.

Result: There was no significant difference between mean mannitol excretion in patients with seborrheic dermatitis (mean 22.75 ± 2.14) and the healthy control subjects (mean 22.39 ± 2.02) ($p = 0.621$). The mean lactulose excretion in the patients with seborrheic dermatitis (mean 0.46 ± 0.09) was significantly higher than that of the healthy control subjects (mean 0.29 ± 0.06) ($p < 0.001$). Lactulose/mannitol excretion ratios (L/M Ratio) in the patients with seborrheic dermatitis, range 0.015-0.031 (mean 0.021 ± 0.005) were significantly higher than those of the healthy control subjects, range 0.010-0.022 (mean 0.013 ± 0.003) ($p < 0.001$). One patients with seborrheic dermatitis had L/M ratio outside the normal range.

Conclusion: These data indicate that small intestinal permeability is increased in patients with seborrheic dermatitis. Impairment of the intestinal mucosal barrier appear to be involved in the pathogenesis of seborrheic dermatitis. There was no correlation between either seborrheic dermatitis's severity or the excretion ratio.

Keywords: Seborrheic dermatitis / Intestinal permeability / Lactulose / Mannitol