

25th World Congress on

NURSING CARE

July 24-26, 2017 Melbourne, Australia

Effectiveness of *Psidium guajava lynn* on decreasing MMP-9 and TIMP-1 ratio of patients with diabetic ulcer**Andina Setyawati, Nuurhidayat Jafar, Andi Wahyuni and Mochammad Hatta**
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Diabetic ulcer is a main health problem, which was found in 15% of 200 million diabetes mellitus patients worldwide and will increase 2.5% annually. Ulcer can become infection's port of entry, disrupt peripheral blood flow progressively and can cause delayed healing. Hence, it needs innovation on each phase of wound healing including herbal medicine such as *Psidium guajava Lynn*. This study aims to determine the effect of *Psidium guajava Lynn* on MMP-9 and TIMP-1 ratio of patients with diabetic ulcer. This was a quasi-experiment study with pre and post-test design with controlled group. Subjects were accidentally selected in this study. MMP-9 and TIMP-1 was evaluated on first visit and baseline laboratories were taken by ELISA. Each subject in the group of intervention took *Psidium guajava Lynn* to wash the ulcer each three days. After 10 times, repeat laboratory examinations were taken. No adverse reactions were reported during the trial. The data were analyzed using paired T-test with significant level of $\alpha \leq 0.05$. This study found a significant on decreasing ratio on intervention group and increasing ratio on control group ($p=0.000$). This study found significant difference of *Psidium guajava Lynn* on changing the ratio of MMP-9 and TIMP-1 ($p=0.035$). This study concludes that *Psidium guajava Lynn* could decrease MMP-9 and TIMP-1 ratio for diabetic ulcer patients.

Biography

Andina Setyawati has completed her Master's degree from Indonesia University, School of Nursing. Presently, she is the Lecturer of Medical Surgical Nursing. She is an Editor of ICON Journal (a nursing journal conducting by Hasanuddin University School of Nursing).

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