

Dissertation Title The Efficacy of Poly-D, L-Lactic Acid (PDLA) Biostimulator Injection on Facial Rejuvenation Markers Improvement of Thai Middle Age

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ABSTRACT

Background: The quality of skin, especially its elasticity, hydration, and texture, diminishes with age, contributing to visible signs of aging. Poly-D, L-lactic acid (PDLA) has emerged as a biostimulator that can potentially improve facial skin quality through collagen stimulation.

Aim: This study aims to assess the efficacy of PDLA in improving facial rejuvenation markers in early and late middle age groups.

Method: A quasi-experimental study was conducted on 30 participants divided into two age groups (early middle age group: 30-45 years and late middle age group: 45-60 years). Each participant received subdermal PDLA injections over six months, with skin quality measurements taken at baseline, 2, 4, and 6 months using various instruments including sebum level, elasticity, skin hydration, transepidermal water, spot, pore, wrinkle, and texture. The present study also assesses for GAIS score, patients' satisfaction score and treatment-related side effect.

Results: Significant improvements in skin elasticity, wrinkles, pores, transepidermal water loss (TEWL), and skin hydration were observed starting from two months after treatment and monitored for six months, with more pronounced effects in the older age group. No severe adverse effects were reported.

Conclusion: PDLA is an effective and safe biostimulator for enhancing facial skin quality of Thai middle age group.

Keywords: Poly-D, L-lactic Acid, Facial Rejuvenation, Middle Age, Sebum, Elasticity, TEWL, Hydration