

Thesis Title	Evaluation of Efficacy and Side Effects of Fractional Mode Q-Switched Ruby Laser 694nm for Facial Rejuvenation in Asians
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ABSTRACT

Facial skin rejuvenation remains an extremely popular elective procedure for treatment of ageing skin. Ablative approach has potential complications and prolonged down time, therefore, non-ablative lasers were developed to avoid these problematic and uncomfortable sequelae. Fractional mode Q-switch Ruby Laser (QSRL) have high peak power and utilize also the fractional photothermolysis principle to achieve facial rejuvenation. Objectives: To evaluate the resurfacing capability of the fractional mode QSRL in Asian skin. Materials and Methods: 24 Thai volunteers with different grades of photo-damaged facial skin and post acne scarring, complete 3 sessions of non-ablative resurfacing of the whole face by 690 nm fractional QSRL at 4 weeks interval. Subjective evaluations include photographs, Patient Global Satisfactory score, and Global Improvement score. However, objective evaluation were also done by using Mexameter, MX18, and Visioscan® VC 98. Results: There is significant improvement in the dyschromia as measured by Mexameter, MX18 (*P* value .002). Patient Global Satisfactory score shows 80% have good to excellent response. No side effects like postinflammatory hyperpigmentation (PIH) were detected. Conclusions: Fractional mode QSRL have resurfacing capability that can targets major features of photodamaged facial skin in Asians, with little downtime, and adverse effects.

Keywords: Photo-damaged skin / Post-acne scarring / Skin resurfacing / Fractional laser / QSRL