

DMM-03 Q-switched alexandrite laser for the treatment of nevus of Ota increase viscoelasticity of the treated area

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Background and Objective:

The mechanism of action by laser or intense pulsed light source to produce the effect of non-ablative skin rejuvenation involves injury to the vessels of the papillary dermis, heating up of the dermis leading to collagen shrinkage and increase in fibroblastic activities. The use of Q-switched alexandrite laser (QS Alex) for the treatment of nevus of Ota based upon the principle of selective photothermolysis and as a result, it should not lead to non-ablative skin rejuvenation. Our objective is to assess the viscoelasticity of nevus of Ota patients after treatment with QS Alex to test the hypothesis that QS Alex can be a tool for non-ablative skin rejuvenation.

Study design/material and method:

34 patients with nevus of Ota were treated with QS Alex (mean fluence: 9.5J/cm², 4-8 treatment sessions per patient). The viscoelasticity of the nevus was assessed by a cutometer at baseline and before each treatment. To ensure consistency, the site of assessment was marked on the translucent paper at the first appointment.

Result:

There was significant increase in elasticity and firmness in area treated with QS Alex (p=0.0001 and 0.001 respectively).

Conclusion:

When used for the treatment of nevus of Ota, QS Alex can lead to non-ablative skin rejuvenation. Given the theory of selective photothermolysis, such effect is unlikely to be due to laser damage to the surrounding tissue. There may be mechanism other than previously propose that can lead to non-ablative skin rejuvenation in nevus of Ota patients treated with QS Alex.

DMM-04 The use of 1320 nm Nd:YAG laser for the treatment of acne scar in Asians

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Background:

Much work have been done looking at the use of 1320 nm Nd:YAG laser for non-ablative treatment skin rejuvenation of photoageing but its role for the treatment of acne scar has not been well documented.

Objective:

To assess subjectively and objectively the role of 1320 nm Nd:YAG laser in the treatment of acne scar.

Method:

8 acne scar patients were treated with 1320 nm Nd:YAG laser. All have received treatment at monthly interval for at least 4 months before assessment. All patients were assessed using a structure questionnaire for the degree of scar depth improvement and overall satisfaction. A cutometer was used for the objective measurement of skin elasticity and firmness.

Result:

All patients noticed at least mild degree of improvement in term of scar depth with 3 out of 8 patients noticed moderate to significant degree of improvement. Adverse effects including post-inflammatory hyperpigmentation were transient only. Cutometer indicated improvement in elasticity in some but not all parameters. Such observation may be related to the fibrosis nature of some of the acne scars.

Conclusion:

1320 nm Nd:YAG laser can be used for the treatment of atrophic acne scar.