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Long Pulsed Alexandrite for the Treatment of Lentiginos of the Face and Hands

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Introduction

Traditionally, the treatment of lentiginos and ephelides has been with the use of Q-switched lasers; however, the use of these lasers results in significant downtime with scabbing, bruising, and peeling and also carries a significant risk of pigmentary changes, of which hypopigmentation can be the most troubling.

Furthermore, treatment is directed to individual spots, which can be difficult and tedious, and frequently leaves a line of demarcation between treated and untreated skin. Due to these reasons, for the treatment of dyschromia, I began by using the long pulsed alexandrite laser with a large spot size and by treating the entire skin surface rather than small, individual lesions. The goal of this presentation is to present my findings and the results of a patient satisfaction survey.

Methods

From November 2002 through April 2003, a total of 27 patients were treated with the GentleLASE[®] long pulsed alexandrite laser to improve the appearance of lentiginos, ephelides, or dyspigmentation from sun damage or melasma (two patients). Patients received one to three treatments (24 had one treatment only, three had two, and one had three) to the entire affected area—either full face, entire hand surface, or the entire cheek area (three patients). Treatments were delivered through an 8 mm (one patient), 12 mm (20 patients), or 15 mm (6 patients) spot size with a fluence of 16–20 J/cm² and no cryogen cooling of the skin. In some areas, greater than one pass was applied to the skin in order to generate a clinical change in the pigmented lesion—darkening, redness, edema, or surface change of the lesion.

Results

Seventeen patients received a full-face treatment, and 14 were contacted for a follow-up survey. Seven patients received treatment to their hands, and all were contacted for a follow-up survey. Three patients received treatment to the cheeks only for the treatment of lentiginos and/or melasma. All of the patients had at least a 50% improvement in dyspigmentation, and greater improvement was noted after more than one treatment.

Results of a patient survey revealed very high patient satisfaction with the procedure. In patients who received full-face treatment, the average downtime reported was two days. No patient reported that downtime would prevent them from having another treatment, and all patients responded that the downtime was worth the results achieved.

Average overall results reported by patients were 1.2, with 1 being excellent; 2—good; 3—fair; and 4—poor. The majority of patients (13/14) reported some improvement in skin tone or texture, with an average score of 2.2 on the following scale: 1—less than 50% improvement; 2—25% to 50%; 3—less than 25%; and 4—none. All patients (14/14) would have the treatment again and would recommend the treatment to a friend.

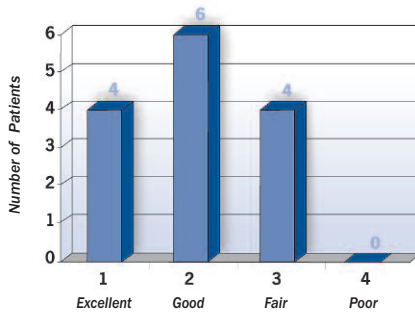
In the treatment of hand lesions, excellent results were also observed, with all patients achieving at least 50% lightening of brown spots. Patient satisfaction was also high with the overall results reported by patients of 1.6. Less improvement was noted in skin tone/texture (2.9 avg. score) and less healing time was reported—an average of 0.3 days. All patients would have the procedure again, and six of seven patients would recommend the treatment to a friend.



Conclusion

Use of the long pulsed alexandrite laser is an excellent treatment for dyspigmentation such as lentigines, sun damage, melasma, and ephelides. Less downtime, diminished pain, and fewer side effects are noted compared to Q-switched laser treatment of individual lesions. Patient satisfaction with the above protocol is very high.

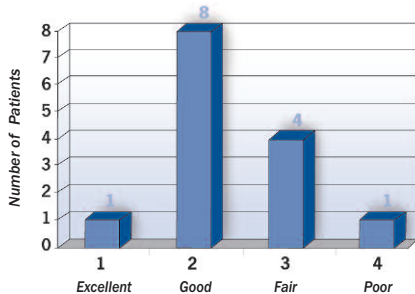
Graph 1—Patient Pain Assessment



Graph 2—Patient Assessment of Improvement in Facial Brown Spots/Patches



Graph 3—Patient Reporting of Skin Tone/Texture Improvement



Case 1—Before and After One Treatment



Case 2—Before and After One Treatment



Case 3—Before and After One Treatment



Case 4—Before and After One Treatment



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