

*Letter to Editor***Comparison between the efficacy of Q-Switched 1064-nm Nd: YAG laser and Fraxel CO<sub>2</sub> laser on improvement of atrophic facial acne scars:****A letter to editor**J Res Med Sci 2011; 16(11): 1516-1517

I read with interest the article of Dr Asilian and coauthors entitled "Comparison between the efficacy of Q-Switched 1064-nm Nd:YAG laser and Fraxel CO<sub>2</sub> laser on improvement of atrophic facial acne scars" in this journal. In this article the authors concluded a better efficacy for fractional CO<sub>2</sub> laser in comparison with 1064-nm Q-switched NdYag laser.<sup>1</sup>

Treatment of the atrophic acne scars is a real challenge in cosmetic dermatology. However, the fractional lasers are ablative laser techniques and are the optional choices with higher efficacy than non-ablatives approaches like NdYag. There is a general consensus about the higher efficacy of ablative methods in comparison with non-ablative ones in the treatment of atrophic acne scars because of their underlying mechanism making them the treatment of choice in the literature.<sup>2</sup>

It might be suggested to select the same laser types for research purposes with respect to their mechanism (from both ablative and non-ablative ones) instead of these two ones which belongs to different laser categories with previously well known different types of action.

I should also note that it is the laser parameters that show its efficacy, consisted of the

wave length, fluency, spot size pulse type and the number of treatment sessions. Lasers that were previously used in other studies for treating acne scars were almost always from 1320-nm short pulsed Nd:YAGs, so the selection of 1064-nm Q-switched one should have had a more detailed explanation by the authors.<sup>3,4</sup>

There are very limited researches in the literature about using 1064-nm laser in the treatment of acne scars. Lipper and Perez used this wave length but they used short pulsed type lasers instead of Q-switched and their selected fluency was 14j/cm<sup>2</sup> and they treated patients for eight laser sessions.<sup>5</sup> The 2.5 j/cm<sup>2</sup> fluency and four numbers of sessions which were selected in the Dr. Asilian's work are low numbers with respect to Lipper's study. Therefore, it may have had a negative influence on their final results in comparison with Lipper's findings.

I should appreciate the Dr. Asilian and his colleagues for their definite methodology especially in the field of selecting the patient skin types to reduce the side effects of laser and also the very well organized follow up. In addition, the use of blinded dermatologists for evaluating the final results was another excellent way to reduce the research bias.

*Neda Adibi*<sup>1</sup>

**Conflict of Interests**

Author have no conflict of interests.

1- Assistant Professor, Skin Diseases and Leishmaniasis Research Center, Department of Dermatology, Isfahan University of Medical Sciences, Isfahan, Iran.  
E-mail: nedaadibi705@gmail.com

**References**

1. Asilian A, Salimi E, Faghihi G, Dehghani F, Tajmir Riahi N, Hosseini SM. Comparison of Q-Switched 1064-nm Nd: YAG laser and fractional CO<sub>2</sub> laser efficacies on improvement of atrophic facial acne scar. *J Res Med Sci* 2011; 16(9): 1189-95.
2. Manuskiatti W, Triwongwanat D, Varothai S, Eimpunth S, Wanitphakdeedecha R. Efficacy and safety of a carbon-dioxide ablative fractional resurfacing device for treatment of atrophic acne scars in Asians. *J Am Acad Dermatol* 2010; 63(2): 274-83.
3. Sadick NS, Schechter AK. A preliminary study of utilization of the 1320-nm Nd:YAG laser for the treatment of acne scarring. *Dermatol Surg* 2004; 30(7): 995-1000.
4. Rogachefsky AS, Hussain M, Goldberg DJ. Atrophic and a mixed pattern of acne scars improved with a 1320-nm Nd:YAG laser. *Dermatol Surg* 2003; 29(9): 904-8.
5. Lipper GM, Perez M. Nonablative acne scar reduction after a series of treatments with a short-pulsed 1,064-nm neodymium:YAG laser. *Dermatol Surg* 2006; 32(8): 998-1006.

Archive of SID