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CASE STUDY: FACIAL PERMANENT ERYTHROSIS
TREATED WITH Nd:YAG LASER

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Case Study: Facial Permanent Erythrosis Treated with Nd:YAG Laser



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Introduction

Facial redness (or erythrosis) can be defined as a hot sensation accompanied by visible reddening of the skin with diffuse red patches usually localized on the nose or cheeks.

Sensitive skin with redness is skin that reacts excessively, reddening and perceiving unpleasant sensations in response to stimuli that usually do not provoke this reaction. Repeated exposure to these triggers causes vasodilation of the facial skin capillaries. Initially, this redness (blushing) is transient. Over time, redness (or erythrosis) becomes persistent, as the capillaries remain in a state of permanent vasodilation.

Skin redness can be triggered by a wide variety of endogenous (e.g. spicy food, hot beverages, alcohol, smoking, hormonal changes and psychosocial stress) and exogenous (e.g. chemical irritants as well as exposure to heat or cold, pollution and UV irradiation) stimuli. In many women, particularly those with fair, thin, or sensitive skin, redness is a sign of ageing brought on by years of sun exposure. The impact of erythrosis is not negligible. Redness has a visible effect that, according to its degree, can affect the normal course of social or working life with psychological and social consequences. Erythrophobia is common. Stigma is common, even more so as facial redness evokes wrongly alcoholism. Nowadays, only the laser technology is considered to be able to solve this kind of problem. The emitted

energy affects the blood circulating in these small vessels, causing the coagulation. The caliber of the ectatic vessels and their depth in the skin can vary greatly and, therefore, the wavelengths to use can be different.

Case Description

A 57-year-old patient, phototype 2, reports permanent erythrosis, localized mainly in the cheeks area (figure 1), causing embarrassment and social discomfort. She was treated with 1064nm Nd:YAG laser (Motus AY system by DEKA Company, Italy), with vascular parameter (VL). The absorption characteristics of this wavelength by hemoglobin and skin melanin usually make it the elective choice when the caliber and/or depth of the vessels are greater. Anyway the result obtained in this case is very satisfactory even if the redness was widespread with fine and superficial vessels. In the figure 2 it is possible to appreciate the evident improvement 1 month after just 1 session.

There were no post-treatment secondary side effects other than a very slight edema which disappeared after 24 hours. Immediately after the treatment, the treated area was cooled by applying to the skin gauzes soaked in cold water for 3 minutes.

The recommendations that have been given after the treatment are the usual ones: do not practice sports in the 5 days following the treatment, do not take hot water baths, do not take a sauna and Turkish bath and use a sun filter at least SPF50.



Figure 1. Facial erythrosis pre-treatment frontal and lateral views.



Figure 2. The same patient 1 month after 1 single treatment with the Motus AY Nd:YAG laser.

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