INTEREST OF 532 nm WAVE-LENGTH TO TREAT PORT WINE STAINS

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Different laser wavelengths have been proposed for the treatment of PWS and have shown varying degrees of efficiency. We have been treating patients with PWS since 1982, but since January 1989 we have been using a frequency-doubled Nd-YAG laser, i.e. 532 nm (150 nsec pulses with 5 KHz repetition rate, mean output : 15 W) which corresponds to a haemoglobin absorption peak.

Up to the present time, our series consists of 135 patients treated in 229 sessions, and can be divided into two groups : large PWS and smaller ones. The first group (89 patients, 109 sessions, 1 patient undergoing 4 sessions; 5,3 sessions; 35,2 sessions; and 48, 1 session) is treated under general anaesthesia, during a 48-hour hospitalization, and the whole surface is scanned using a robot (MC. SCAN). The multiple sessions which used to be necessary are thus avoided and the result is much more uniform. In the case of thick PWS extending into the dermis, further sessions can be performed 5 to 6 months later. The second group includes 46 patients treated in 120 sessions (4 patients, 4 sessions; 8,3 sessions ; 13,2 sessions - 21,1 session) and is treated on an out-patient basis using a HEXASCAN coupled to the 532 nm Nd-YAG Laser.

In our 2-year experience, no tests or biopsies were performed. Our first 3 patients developed hypertrophic scarring due to our inexperience with this new wavelength. Now, all parameters are well defined and, comparing with the Argon Laser, healing is quicker, and after the inflammation period (4 months) colour improvement appears to be greater.

We do not conclude that we are now using "the" laser, but we believe the quality of PWS treatment has been improved.