

FORMAT FOR IMeLaS/IDeLaS/IVeLaS CANDIDATE CASE REPORTS

As an IMeLaS/IDeLaS/IVeLaS candidate for the I- and A-IMeLaS/IDeLaS/IVeLaS certificates, one of the requirements is the submission of 10 case reports on laser application in medicine, surgery or research. You can report on a multisubject study using a representative case from that study to illustrate the techniques used, or you can provide one single case report. Please refer to the sample appended herewith for guidance. If they will help in the understanding of the report, illustrations (in TIFF or JPEG format) can be added either in colour or grayscale. References are not required.

Notes for Submission

- All submissions should be made via email to wfslms@jml.co.jp , accompanied by a short covering message stating your name and affiliation.
- The deadline for IMeLaS/IDeLaS/IVeLaS case report submission is **November 10th** 2012.
- Submit the text for each report in a Word document (at least version 2003) in single spaced 12 point Times or Times New Roman font, A4 page size, 2 cm margins all round, labelled with the author's family name and the number of the report: e.g., Smith Case Report 5.doc. Any tables should be on a separate page with a legend for each table, and legends for any figures should also be on their own page.
- Submit any images in separate TIFF or JPEG files (size not to exceed 250 kb) labelled with the author's family name, the case report number and the figure number, for example, 'Smith Case report 5 Fig 2. jpg.
- Submit each case report separately as a stand-alone piece of text in the format of an extended structured abstract of 600 – 700 words, under the following headings.

Background and Aims

In this section, give the relevant background to the study, and state the aims, if any,

Subjects

Start with a description of the patient or patients, giving sex and age, or average age and range in the case of multiple subjects.

Describe the disease or condition, and provide relevant patient history.

Describe the laser or lasers used, giving the manufacturer with brief location, model, and type.

Provide all laser parameters: wavelength in nm; mode, i.e., pulsed, continuous wave, frequency modulated; output power incident at the tissue (W); spot size (diameter in cm, or area in cm²); and irradiation time per shot for C/W; and all parameters appropriate for pulsed systems.

Describe the treatment protocol, including wound care.

Results

Give the results, including any follow-up times.

Conclusions

Briefly discuss the results and, based on the results, draw brief conclusions.

A sample case report is seen on the following page. Please use this as a model.

Background and Aims

Verrucae, and plantar veruccae in particular, have been long recognized as being problematic lesions to treat successfully, with high recurrence rates. The use of carbon dioxide laser surgery offered better treatment than conventional approaches and the Er:YAG laser, with a much higher absorption rate in water, offers even better treatment, with precise ablation. The present study assesses the efficacy of the Er:YAG laser to ablate plantar warts.

Subjects and Methods

Twenty-five subjects with recalcitrant plantar warts formed the study group, 20 males and 5 females, average age 45.6 yr with a range of 18 – 72 yr. Nineteen had unilateral plantar warts, with bilateral warts seen in the remaining 6 patients: in their case, only 1 foot was treated at a time. Previous treatments had been unsuccessful or at best partially successful, and included cryotherapy with liquid N₂, paring and excision, and CO₂ laser. In some patients, multiple modalities had been tried, but with little or no success. The following is a representative case report of our Er:YAG ablative approach.

Case Report: A 63-year-old male presented with a large plantar wart on the left heel, with a history of more than 3 years. Previous treatments with surgical excision and cryotherapy had proved unsuccessful, and the lesion had in fact enlarged and become painful, causing gait disturbance. It was decided to vaporize the lesion. The laser used was an Er:YAG (Lumenis, Yokneam, Israel), delivering 2,940 nm in pulsed mode. The treatment parameters were 29 J/cm², 2.0 J/pulse, 350 μs pulsewidth, repetition rate of 12 Hz, and the 3 mm collimated handpiece was used. Following local injection anaesthesia, and starting in the center of the macroscopically visible part of the wart and working out towards the periphery and down into the affected tissue, the verrucous tissue was cleanly and precisely ablated layer by layer till normal tissue architecture, identified with the help of magnifying loupes, was seen on the sides and base of the wound. The final clean wound showed no macroscopic signs of secondary thermal damage with no bleeding. The wound was dressed with flumetasone gentamycin (Flutanol®) ointment and a gauze pad to gather the exudate, and covered with sterile cling film in the occlusive dressing technique. The patient returned 48 hours later, the dressing was removed, the wound was gently patted dry with gauze and redressed.

Results:

At the 48-hr assessment, all patients were totally pain free, and walking normally with normal weight-bearing on the affected heel. On postoperative day 3, the gauze pad usually revealed no exudate and no further dressing was applied thereafter. Good healing was seen at postoperative days 6 and 10. No recurrence was seen in follow-up periods ranging from 5 to 11 months.

Conclusions

The Er:YAG laser has ten times the absorption rate in water than the CO₂ laser, so that it can very rapidly, accurately and cleanly ablate tissue with absolutely minimal deposition of a few micrometers of RTD. When this very important characteristic is coupled with an extremely high power density (just under 83,000 W/cm²) and the high repetition rate (12 Hz) used in this study, the entire procedure was accomplished extremely rapidly with a dry field, and minimum compromise of wound healing from secondary thermal damage.

In conclusion, in a series of 25 patients treated by the author in a 12-month period (45 warts on 31 feet), the Er:YAG laser allowed precise and controlled ablation of the lesion and its root with limited necrosis due to the small amount of secondary thermal damage associated with the 2,940 nm wavelength. Differentiation between columnar and normal epithelium was easily seen with magnifying loupes, and wound healing was excellent with no recurrence in an extended follow-up period of at least 5 months.