

IRIS: the versatile vascular laser



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OVERVIEW

The application of the IRIS laser for common vascular conditions has been outlined in clinical paper 1. In paper 2, we explore other forms of vascular conditions that can benefit from IRIS laser therapy. We will review IRIS treatment of rosacea telangiectases (Case 1) and less common forms of vascular entities such as radiation telangiectases (Case 2) and keratosis pilaris rubra (Case 3).

Case 1 rosacea erythema and telangiectases

A 67 year-old female with moderately severe telangiectatic and erythematous rosacea (Figure 1) was treated with 3 sessions of the IRIS vascular laser. The visible telangiectatic capillaries were carefully traced (1.2mm spot size, 10j/cm², 15ms, 5-10Hz, contact cooling 10°C, standard tracing mode) followed by field treatment of the cheeks, chin and nose with the fractional scanner (2cm diameter round field: 1.2mm spot, 60Hz, random, 70% coverage). It takes 4 seconds to deliver the pulses in random pattern over the 2cm diameter spot. Treating the lower face took approximately 3 minutes per pass (2 passes total). The first pass was performed with the scanner in '4-second random pattern' using the stamping technique and the second pass was performed with the scanner in 'continuous scatter pattern' using a moving technique. After 3 treatment sessions there was a very noticeable improvement in the appearance and symptoms of the rosacea.

Figure 1

67 year-old female with rosacea:
after 3 treatment sessions with the
IRIS 532nm laser on standard
tracing mode and fractional scanning
mode for discrete capillaries and
erythema.



Case 2 post radiotherapy telangiectases

A 65 year-old female presented with post-radiation telangiectases on the left breast (Figure 2) 10 years after successful surgery and radiotherapy for breast cancer. The main motivation for treatment was to reduce the unsightly telangiectases, which reminded her of the breast cancer. The lateral quadrant was treated with the pulsed dye laser (3x10mm spot size, 13.5J/cm², 20ms, medium cryogen cooling). The medial quadrant was treated with IRIS in standard tracing mode (1.2mm spot size, 10mj/cm², 15ms, 5-10Hz, 10°C contact cooling) followed by fractional scanner (10j/cm², 15ms, 60Hz, 70% coverage, contact cooling 10°C). After 1 treatment session there was significant improvement in both quadrants. The patient preferred the IRIS because it was more comfortable.



Figure 2

65 year old female:
significant improvement in
post-radiation telangiectases,
left breast, after IRIS laser.
Split breast study: IRIS (medial
quadrant) versus pulsed dye laser
(lateral quadrant).

Case 3 Keratosis pilaris rubra

An 18 year-old female with prominent facial erythema associated with keratosis pilaris rubra – a condition characterised by follicular keratosis and perifollicular erythema on the lateral arms, thighs and cheeks (Figure 3). She was treated with 5 sessions of the 595nm pulsed dye laser (10mm spot size, 10J/cm², 3ms, medium cryogen cooling, 2 passes, monthly intervals) with a moderate degree of improvement. The improvement plateaued after the 4th and 5th treatment. She was then treated with the IRIS on the 6th session with further improvement. The IRIS treatment parameters: fractional scanner 10J/cm², 15ms, 60Hz, 70% coverage). It takes 4 seconds to deliver the pulses in random pattern over the 2cm diameter spot and takes under a minute to complete the treatment over the affected areas on the cheeks (2 passes). The first pass was performed with the scanner in '4-second random pattern' using the stamping technique and the second pass was performed with the scanner in 'continuous scatter pattern' using a moving technique. When asked to compare the IRIS with the pulsed dye laser, the patient indicated a preference for the IRIS because it was more comfortable and resulted in further improvement in the facial erythema.



Figure 3

18 year old female with facial erythema from keratosis pilaris rubra: baseline (left), after 5 sessions of pulsed dye laser with no further improvement (middle), and further improvement after one additional session (6th) with the IRIS.

Summary

The IRIS laser is a criterion standard for vascular work and is reliable, effective and well tolerated by patients. It compares favourably to other vascular lasers such as the pulsed dye laser and is perceived as more comfortable by patients because of the contact cooling and fractional delivery mode. The IRIS is an ideal laser for treating rosacea telangiectases and erythema, as well as other types of vascular conditions.