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Patient Background

A 66-year-old male with Fitzpatrick skin type I was presented with widespread facial erythema-telangiectatic rosacea, likely secondary to chronic sun exposure. He has never had laser therapy previously. After an assessment, he was treated with the Vbeam Perfecta system, without any medical or topical prescription therapy.

Methodology

The patient was treated with the Vbeam Perfecta Pulsed Dye Laser (PDL). Four sessions were conducted at 6 weeks interval. No topical anaesthesia was required. Different parameters were used on different parts of facial rosacea, depending on sites, size of telangiectasia and background erythema. The clinical endpoint to the larger calibre telangiectasia was more difficult to achieve, and therefore the resistant vessels were treated with a sub-purpuric and purpuric endpoint in subsequent sessions. Ice and cool compressions were used immediately post-laser to reduce oedema.

Detail treatment protocol

	Wavelength (nm)	Indication	Spot Sizes (mm)	Fluence (J/cm ²)	Pulse Duration (ms)	Passes	DCD	Clinical Endpoint
Step 1	595	Nasal, peri-nasal, chin and cheeks larger telangiectasia	3 x 10 mm	11 - 12	10 (majority) or 20	1	30/20	Ranging from vessels lightening, transient purpura to disappearance of vessels;
Step 2	595	Smaller telangiectasia (mainly nasal bridge and chin)	7 mm	9	6	1	30/20	Transient purpura
Step 3	595	Background erythema	10 mm	6 - 7	6	1 - 2	30/20	Erythema and oedema
Step 4 (Subsequent sessions)	595	Larger telangiectasia (mainly cheeks) resistant to previous session	7 mm	10 - 11.5	10	1	30/30	Sub-purpura to Purpura



Results

A significant overall improvement was observed without any complications.



Fig. 1. (a) Baseline



Fig. 1 (b) Baseline 45°



Fig. 1 (c) Baseline 90°



Fig. 2. (a) After 4 sessions



Fig. 2 (b) After 4 sessions 45°



Fig. 2 (c) After 4 sessions 90°

Discussion

Pulsed dye laser has been known to be the gold standard therapy for facial rosacea in the form of telangiectasia and erythema. In this case, the changes were long-standing and extensive. Multiple sessions were required to achieve an excellent clinical result.

Purpuric settings were helpful for larger calibre telangiectasia and resistant erythema, and these were applied mainly on his mid to lateral cheeks. The patient has reported purpura clearing within 1-2 weeks post laser therapy and was not bothered by this.

On top of the clearance of telangiectasia and erythema, the patient also reported a very satisfactory overall rejuvenation effect, likely to be explained as a benefit from bulk-heating of dermal collagen with the Vbeam laser sessions.

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