



Alpha System 3D IPL S-530 treatment for rosacea and facial telangiectasia

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3D IPL S-430 Acne Vulgaris protocol review

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Background:

Rosacea is a chronic skin condition that primarily affects the face, causing redness, visible blood vessels, and sometimes acne-like bumps. It typically begins with episodes of flushing and redness, and over time, it can lead to more persistent symptoms and skin changes. While the exact cause of rosacea is not fully understood, a combination of genetic, environmental, and vascular factors is believed to contribute to its development. While rosacea is a chronic condition that cannot be cured, it can be effectively managed and controlled with appropriate such as IPL treatments and lifestyle adjustments. Early intervention can help prevent the progression of symptoms and potential complications.

Common signs and symptoms of rosacea include:

- **Facial Redness:** Rosacea often starts with intermittent episodes of facial flushing, where the skin becomes red and warm. Over time, this redness can become more persistent.
- **visible blood vessels (Telangiectasia):** Small, visible blood vessels (capillaries) may become dilated and more prominent on the skin's surface, particularly on the nose, cheeks, and chin.
- **Papules and Pustules:** Some individuals with rosacea develop red, acne-like bumps that may contain pus. These are different from regular acne and are often called papulopustular rosacea.
- **Enlarged Nose (Rhinophyma):** In some cases, especially in men, the skin on the nose may thicken and become bumpy, leading to a condition called rhinophyma.
- **Ocular Symptoms:** Rosacea can affect the eyes, causing symptoms such as dryness, irritation, redness, and sensitivity to light. This is known as ocular rosacea and can lead to more severe eye complications if left untreated.

Objectives of the Study:

Our study aims to evaluate the safety and aesthetic efficacy of the Alpha System (by Formatk Systems Ltd.) phototherapy 3D IPL treatment for Rosacea and facial telangiectasia using the 3D IPL S-530 applicator (530nm) using approved instruction of use by both the clinical protocol and user guide(manufactured by Fromatk System's Ltd). Each patient received at least 2 treatment with time interval once month between each session and one month follow up after last treatment. Photographic assessments of the Rosacea and facial telangiectasis were performed using both canon camera DSLR EOS mark 2 with 24-70mm lens, observe 520X imaging system and dermoscopic images using Derm lite 4 obtained before and after each treatment. Treatment efficacy was evaluated using a 4-point scale.



Methods:

This was a prospective, single-center case study, which included a total of 2 patients, one male and one female (Age range: 42-47, average 44.5), with a diagnosis of rosacea and facial telangiectasia who had unsuccessful aesthetic clinical results with previous oral ivermectin/oral antibiotics and topical ivermectin prescribed treatments. The patients were selected during the period from 01/2023 until 08/2023. Patients enrolled in this study signed a written informed consent. Each patient received at least two treatments with time intervals of once a month between each session and a one-month follow-up after the last treatment. Photographic assessments of the rosacea and facial telangiectasis were performed using both Canon camera DSLR EOS mark 2 with 24-70mm lens, observe 520X imaging system, and dermoscopic images using Derm lite 4 obtained before and after each treatment.[ST1] [ST2] Treatment efficacy was evaluated using a 4-point scale. Clinical photographic images obtained before and after were evaluated by Dr. Nadav Pam , Formatk's Clinical director.

Results:

In this study, we have demonstrated the safety and effectiveness of The Alpha System using the 3D IPL S-530 applicator (530nm) in the treatment of Rosacea and Facial telangiectasia. The Alpha System 3D IPL benefits – cooling control can help reduce vasoconstriction, therefore allowing more accurate chromophore targeting, reducing facial telangiectasias, and further improving the rate of aesthetic clinical results. The overall average improvement rate of both patients was 84% (range 80-88%), which significantly improved after treatment. It is essential to mention that the clinical results could be seen initially after the first treatment. [ST1] There were no significant side effects, and the average VAS score (The Visual Analogue Scale, which measures pain intensity) was 3.5 out of 10 (ranges 3-4).

Discussion:

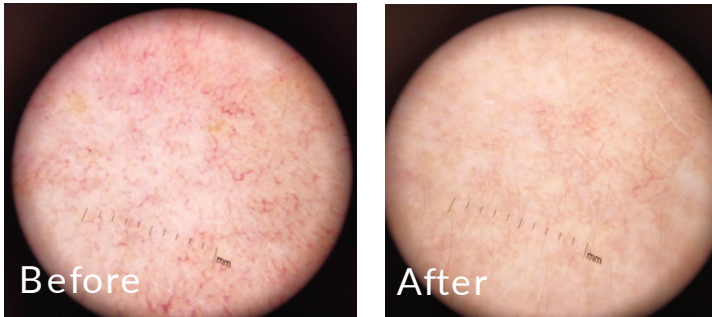
Intense Pulsed Light (IPL) therapy is a popular treatment option for various skin conditions, including rosacea and facial telangiectasia (dilated blood vessels). It's essential to receive IPL treatments from a qualified and experienced practitioner. It's important to note that rosacea varies in its presentation and severity from person to person. IPL treatments can be effective in reducing the redness and flushing associated with rosacea. The light energy targets blood vessels, causing them to shrink and become less visible. Multiple sessions are often required for optimal results. IPL treatments can also target and reduce the appearance of facial telangiectasia by causing the blood vessels to coagulate and eventually be reabsorbed by the body. Like rosacea, multiple sessions are typically needed for noticeable improvement. Maintenance sessions may be required to sustain the effects over time since rosacea is a chronic disease. It is demonstrated that temperature tremendously influences the viability of Demodex. Intense pulse light treatment used by a trained professional according to the operation guidelines using the s-530 applicator will have to achieve the necessary parameters to be harmful to the Demodex mite without damaging surrounding skin tissue, therefore reducing the number of Demodex mites, which will reduce the inflammatory cascade and reduce the VEGF (Vascular endothelial growth factor) signal to promote excessive facial telangiectasias resulting in an improved rate of aesthetic result from the IPL treatment. It is important to remember that individual experiences can vary, and it's crucial to have a personalized assessment and treatment plan from a qualified medical professional. Always follow the post-treatment care instructions provided by your practitioner to ensure the best possible outcome and minimize any risks. Specific triggers can worsen rosacea symptoms, such as exposure to sunlight, heat, spicy foods, alcohol, and stress. It should be advised for each patient to try avoiding the trigger that exacerbates their rosacea. The results support the validity, effectiveness, and safety of the Alpha System (by Formatk Systems, Israel) in treating Rosacea and Facial telangiectasia using the S-530 applicator.

Patient number	Number of Treatments	Total Improvement rate at the end of treatments	Improvement rate by 4-point scale system	Vas Score (pain from scale 1-10)	Side effect
1(Female)	2	80%	Significant improvement after treatment	3	N/A
2(Male)	4	88%	Significant improvement after treatment	4	N/A

Evaluation of efficacy of therapeutic procedures:
Patient 1 - Treatment parameters: Age: 47. Fitzpatrick 1 (used melanin meter), Number of treatments: 2
System : Alpha , Applicators S-530 Joules: 18J/cm 2
Rate: 1Hertz, Treatment interval 1month. Parker Gel: Yes.
Side effects: none.



Photo-dermoscopy before and after treatment of telangiectasia:



Patient 2 - Treatment parameters: Age: 42. Fitzpatrick 1 (used melanin meter), Number of treatment 4
System : Alpha , Applicators S-530 Joules: 18J/cm 2
Rate: 1Hertz, Treatment interval 1 month. Parker Gel: Yes.
Side effects: none.



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