



Case Study: Preliminary Observations on the Synergistic Impact of the FormaTK ALPHA System 3D IPL Tight & Bright Non-invasive Treatment Combined with Estar Medical / Cellenis PRP Injection

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Background:

In today's highly competitive aesthetic industry, clinics, and practitioners constantly search for cutting-edge treatments that deliver visible, effective results. Rarely do two different industry leaders come together to create a synergistic solution that meets this demand, yet that's precisely what has happened with the FormaTK ALPHA system's 3D IPL "Tight & Bright" protocol followed by Estar Medical's Cellenis PRP injection protocol.

This collaboration merges two advanced aesthetic technologies that provide superior skin rejuvenation, enhanced collagen production, and accelerated natural healing. Combining the strengths of FormaTK ALPHA's 3D IPL Tight and Bright technology with Cellenis PRP's regenerative power, this treatment represents future aesthetic care.

With this groundbreaking combination, your clinic can offer an exclusive, high-impact solution that helps patients achieve the youthful, glowing skin they desire while setting your practice apart in a crowded market.

This cutting-edge synergy leverages two of the most advanced technologies in aesthetic treatments today.

FormaTK ALPHA System's 3D IPL "Tight & Bright"

The FormaTK ALPHA System's 3D IPL 530nm "Tight & Bright" non-invasive protocol stands out for its unique combination of advanced technology and precision targeting, explicitly utilizing a 530nm wavelength. This precise wavelength provides several distinct advantages for treating various skin concerns, making it a superior option in aesthetic treatments. The 530nm wavelength is particularly effective for targeting pigmentation and vascular issues, such as sunspots, age spots, and redness caused by broken capillaries or rosacea. It provides deep penetration into the skin, stimulating the production of collagen and elastin, leading to firmer, smoother skin.

The 3D IPL technology does more than just address pigmentation; it offers a multi-dimensional approach by also:

- smoothing out rough skin and reduces the appearance of fine lines and pores, giving the skin a more refined and youthful appearance.
- stimulating the deeper layers of the dermis with the 530nm wavelength, promoting natural collagen synthesis and leading to long-term anti-aging benefits.
- effectively reducing discoloration, resulting in a more uniform, radiant complexion.

Tight & Bright protocol treatment uses two (2) passes over the treatment area:

First Pass – Full facial treatment in which we used a medium energy level with a 530nm 3D IPL applicator on an Alpha System (produced by Fromatk Systems Ltd). The energy parameters were adjusted according to the Fitzpatrick type of each patient. Fluence (J/Cm²) ranged from 12-18, Mode: single (stamping), Frequency: 1 Hertz and pulse duration (ms) 10-15. The First pass aims to "break down" superficial pigmentation, making the area and the lesions more susceptible to energy absorption.

Second Pass – Each Cheek or forehead received three passes of up to 25 pulses. We used the same applicator and system but with different parameters. In the second pass, we used the fluence of 10 J/Cm², Mode: Triple continues; this is a rapid mode that releases nine pulses per second ultra-short pulses (pulse duration of 5ms) that pick up on the pigmentation and allows reaching the desired results. The use of ultra-short pulses ensures that energy absorption is more selective [1-24].

Estar Medical's Cellenis PRP Injection: Advanced Autologous Facial Rejuvenation

Cellenis® PRP is a non-surgical, autologous treatment for facial rejuvenation, designed to enhance skin regeneration using the body's own natural healing mechanisms. Certified as a CE Class IIb medical device under the European Directive 93/42/EEC, Cellenis PRP meets stringent regulatory standards for safety and efficacy. The system is engineered to produce highly pure and effective platelet-rich plasma (PRP) by eliminating unwanted erythrocytes (red blood cells), which can inhibit fibroblast activity. Utilizing a state-of-the-art blood processing system, Cellenis PRP optimizes the extraction and concentration of platelets and growth factors from the patient's blood, ensuring a high-quality PRP formulation with precisely calibrated platelet concentrations. This enhances the treatment's regenerative potential, promoting collagen synthesis, tissue repair, and overall skin rejuvenation. Beyond traditional PRP, the Cellenis system incorporates an advanced step to enhance the formation of a platelet-rich fibrin matrix (PRFM). This matrix serves as a stable scaffold for prolonged collagen production and accelerated wound healing, delivering both immediate and long-term aesthetic benefits. Cellenis PRP offers customizable protocols tailored to various clinical applications, including skin rejuvenation, hair restoration, and scar healing. The system allows for adjustable platelet concentrations, ensuring optimal outcomes for diverse aesthetic and therapeutic indications. Because Cellenis PRP is derived from the patient's own blood, it is a natural, biocompatible treatment with minimal risk of allergic reactions or complications.

Key Features of the Cellenis PRP System

- Vacuum-Filled, Internally Coated Glass Tubes
 - Prevents platelet adhesion to tube walls.
 - Ensures precise blood collection at controlled pressure to prevent cell lysis.
- Proprietary Neutral pH Anticoagulant (MNC7)
 - Maintains platelet integrity by reducing acidity.
 - Minimizes injection-related discomfort.
- Patented Precision Separator Gel
 - Enables a single-spin process for enhanced purity.
 - Delivers:
 - Physiological monocyte concentration
 - Gold-standard platelet concentration
 - 99.9% RBC removal
 - 92% granulocyte removal

This innovative system ensures a highly pure and effective PRP preparation, maximizing regenerative outcomes for superior aesthetic and therapeutic benefits [25-27].

Aim of the case study:

This case study is aimed to combine the synergistic power of advanced 3D IPL technology and regenerative PRP therapy to achieve the following outcomes:

- **Reduced wound healing time**
- **Brighter, more even skin tone**
- **Visible reduction in fine lines and wrinkles**
- **Enhanced collagen production and improved elasticity**
- **A natural, long-lasting glow with no downtime**

Methods:

This prospective, single-center observational case study was conducted at Medios Medical Center in Budapest, with patient selection occurring between September 1, 2024, and January 15, 2025. The combined treatment protocol was performed by Dr. Bernadett Buda and her team. The Tight & Bright treatment protocol was designed by Dr. Nadav Pam, while the Cellenis PRP protocol was developed by Dr. Sary Kadar for this study. Clinical photographic images obtained before and after the treatment were evaluated with a 4-point scale evaluation by Dr. Nadav Pam, and Dr. Bernadett Buda.

Inclusion Criteria:

1. The patient's face has significant signs of aging skin, visible pigmentation, and wrinkles.
2. Above the age of 30 years old.
3. Patients without previous facial injections (with active chemical compounds), dermal fillers, or facial cosmetic surgery.
4. Patients who accepted to be included in this study and signed a written informed consent.

Exclusion criteria:

1. Drug-induced photosensitivity (e.g., Isotretinoin, Retin A)
2. Pregnancy and breastfeeding
3. Cancer
4. Epilepsy
5. Severe diseases
6. Auto-immune diseases
7. Frequent episodes of labial Herpes Simplex in case of face Treatment
8. Immunosuppressive pharmacologic therapy
9. Any other medical condition considered contraindicated to the treatment by the investigator.

Treatment Overview:

All patients underwent three sessions using the Alpha System (manufactured by FormaTK Systems) with the 3D IPL S530nm Tight & Bright treatment protocols, along with three Cellenis PRP facial injections (manufactured by Ester Medical) at four-week intervals.

The Cellenis PRP used in this study was characterized by:

- Physiological levels of mononuclear cells.
- Platelet concentration of approximately 4× baseline (1 million platelets/ μ L).
- Granulocyte depletion: >92% neutrophil depletion.
- Red blood cell removal: >99.9% RBC removal.
- Centrifugation: Single spin at 1500 RCF for 10 minutes.

Pre-Treatment Preparations

- Standardized patient photos were taken from the front and both sides (90-degree angles) using consistent lighting and a hairband.
- Fitzpatrick skin type analysis was performed using the MILO Melanin Meter (manufactured by Callegari, Parma, Italy). This optical sensor measures melanin levels (1-100) using two wavelengths (660nm and 875nm) to assess absorption and reflection.
- Skin parameter selection: Based on the Fitzpatrick classification, treatment parameters were determined.
- Protective Measures: Both the patient and the operator wore appropriate protective goggles.

PRP Preparation

- Blood Collection: 22 mL of blood was drawn.
- Centrifugation: The blood was centrifuged at 1500 RCF for 10 minutes (single spin).

Skin Preparation

- The face was cleansed before treatment.
- A protective ultrasound Parker Gel was applied.

3D IPL Tight & Bright Treatment

- Using the Alpha System with the 3D IPL S530nm applicator, the Tight & Bright mode was selected.
- Step 1: First pass.
- Step 2: Second pass.
- Temperature Monitoring: Skin surface temperature in the treated area was measured before, during, and after each vertical pass using a no-contact infrared thermometer.

Anaesthetic Application

- Topical Anaesthetic: 23% Lidocaine base, 3.5% Tetracaine base, 3.5% HCL.
- Application Time: 20 minutes (blood collection and PRP aspiration were performed during this time).

PRP Processing

- Aspiration of 6mL of plasma from the centrifuged tube (discarded).
- The remaining 4-5mL of PRP was gently mixed (by tilting the tube a few times) and aspirated into a 1mL syringe.
- A needle was attached to the syringe, using Asti Quatron Multi-Needles for safer and more efficient injections at a 2mm depth.

PRP Injection Process

- Removal of anaesthetic preparation and thorough skin cleansing/disinfection.
- Injection Allocation:
 - 1.5-2 syringes for the face.
 - 1 syringe for the forehead.
- PRP was injected superficially using small pricks until whitening of the skin was observed.

Post-Treatment Care

- The skin was cleaned at the end of the procedure.
- Sunscreen was applied for protection.



Patient #2 during 3D IPL Tight & Bright Treatment

Results

The study enrolled 10 healthy adult female volunteers aged 36 to 53 years (mean age 43 years) with Fitzpatrick skin types II–IV. Among them, 3 participants had Fitzpatrick skin type III, 6 had type VI, and 1 had type IV.

All subjects exhibited visible signs of aging, including wrinkles and pigmentation.

Clinical photographic evaluation using a standardized 4-point scale demonstrated that 8 participants experienced moderate improvement, while 2 exhibited significant improvement following the combined treatment protocol.

Pain levels assessed using the Visual Analog Scale (VAS*) indicated high tolerability, with 2 patients reporting no pain (VAS score = 0), 1 patient with a mild score of 1, 4 patients with a score of 2, and 3 patients with a score of 3. Importantly, none of the participants reported moderate or severe pain. No adverse effects were observed throughout the study.

4-point scale evaluation based on photographic Images from before the first and after the last treatment:

Patient #	Age	Gender	Overall, 4-point scale improvement	VAS *
2	46	Female	Moderate	2
2	37	Female	Moderate	2
3	42	Female	Moderate	1
4	43	Female	Moderate	3
5	53	Female	Significant	3
6	47	Female	Moderate	2
7	50	Female	Moderate	3
8	40	Female	Significant	0
9	40	Female	Moderate	0
10	36	Female	Moderate	2



Patient #1 during the PRP Injection Process

Fitzpatrick Skin Type	Total Number of Patients	Gender
1	-	-
2	3	Female
3	6	Female
4	1	Female

Discussion:

The preliminary findings of this case study suggest that the combined application of the FormaTK ALPHA System 3D IPL Tight & Bright protocol and the Estar Medical/Cellenis PRP injection protocol is both effective and well-tolerated. The results demonstrated significant skin rejuvenation benefits with moderate to significant improvement in all participants, and the absence of adverse effects further supports the safety of this approach.

The treatment was well received across different skin types (II–IV), with all patients showing some level of visible improvement. Furthermore, the pain levels reported were mild, highlighting the patient-friendly nature of the protocol. Given that none of the participants reported significant discomfort, this combined treatment may offer an attractive alternative to more invasive aesthetic procedures.

Despite the promising results, the study is limited by its small sample size and the lack of a control group. Future research with a larger, more diverse population and objective skin assessment tools is recommended to validate and optimize this protocol. Additionally, long-term follow-up is necessary to evaluate the durability of the observed improvements.

Conclusion:

The FormaTK ALPHA System 3D IPL 530nm Tight & Bright protocol combined with Estar Medical / Cellenis PRP injections appears to be a safe and effective synergistic approach for facial skin rejuvenation. The preliminary results indicate moderate to significant improvements in skin texture and appearance, with no reported adverse effects.

The high tolerability and minimal discomfort experienced by participants further reinforce the feasibility of this combination treatment. Future studies with larger sample sizes and extended follow-up periods are required to establish the long-term efficacy and broader applicability of this protocol in aesthetic dermatology.



Before & After Preliminary Results

- 10 healthy individuals
- 3 sessions of IPL Bright & Tight treatments
- 3 sessions of facial injections with granulocyte-depleted PRP
- 4-week intervals

Patient 1



Patient 2



Patient 3



Patient 4



Patient 5



Patient 6



Patient 7



Patient 8



Patient 9



Patient 10



Reference:

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