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Efficacy of combination therapy in patients with rosacea

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Introduction & Objectives:

Rosacea is a common chronic inflammatory disease that manifests itself with recurrent redness, diffuse erythema, telangiectasia, papules or pustules predominantly on the nose, chin, cheeks and forehead. Most treatments are aimed at reducing inflammation with concomitant reduction of inflammatory and localized erythema. However, persistence of diffuse vascular erythema remains a therapeutic problem in patients with papulopustular and erythematoteleangiectatic subtype of Rosacea. The aim of the study is to evaluate the effectiveness of combination therapy in patients with Rosacea.

Materials & Methods:

We observed 24 patients aged 18 to 58 years, with an established diagnosis of Rosacea erythematoteleangiectatic and papulopustular subtypes of mild and moderate severity, as well as with their combination. The first group of 12 patients received pulsed dye laser (PDL, with a wavelength of 595 nm) procedures and topical therapy with 15% azelaic acid gel in combination with 1% ivermectin cream. The laser treatment protocol included repeated passes over the treated areas of the face using subpurple settings with a spot size of 7 to 10 mm, a pulse duration of 3, 6, or 10 ms, and an intensity of 6 to 10 J/cm^2. Course was 3 procedures with an interval of 1 month. In the second group, 12 patients received intradermal injections of incobotulinumtoxinA in the area of redness with an interval of 1 cm between injections in combination with topical therapy with azelaic acid and ivermectin creams. IncobotulinumtoxinA was used at a dilution of 1 ml per 100 units of toxin, from 10 to 20 units per cheek in an additional dilution of 1:7. On the first and last visit, erythema was assessed by spectrophotometric intradermal analysis on the SIAscan of hemoglobin distribution, the success of therapy was assessed using the Investigator Global Assessment (IGA) scale. The severity of clinical manifestations in patients was assessed in points according to the dermatological index of the symptom scale (DISS scale) before treatment at baseline and after 16 weeks of therapy - from 0 to 15 points.

Results:

All patients tolerated the treatment satisfactorily; no side effects were registered, which indicates the possibility of combined use of azelaic acid and ivermectin preparations in combination with botulinum therapy with incobotulinumtoxinA and PDL 595nm. According to the data of photofixation, SIAscopy, assessment of the dynamics of the DISS scale, the IGA index, the effectiveness of therapy of all treatment methods in relation to inflammatory and local erythema is shown. In the first group, the DISS index reduction was 70.2% (from 5,7 ± 1,4 to 1,7 ± 1,2, p <0.05), in the second group — 61,4 % (from 5,7 ± 1,7 to 2,2 ± 1,2, p <0.05). After 16 weeks of therapy, 65% of patients achieved an IGA score of 0 - “clear skin”, 35% - “almost clear skin”. Reducing diffuse erythema, telangiectasias is more significant in the first group, narrowing of pores and improving skin quality – in the second group.

Conclusion:

Laser therapy PDL 595 nm is a leader in the treatment of individual telangiectasias and vascular pattern. Topical application of azelaic acid in combination with ivermectin shows a reduction in the inflammatory component in the form of pustules. Combination therapies are effective against both vascular and inflammatory components and represent a promising approach to the treatment of patients with erythematoteleangiectatic and papulopustular subtypes of Rosacea.