STRESZCZENIE PRACY W JĘZYKU ANGIELSKIM

Acne vulgaris is a long known chronic inflammatory disease of the hair and sebaceous system. The disease equally affects both men and women. Moderate to severe lesions occur in nearly 80% of the population between the ages of 11 and 30, while mild lesions affect nearly 100% of people during adolescence. Increasingly, unfortunately, these lesions persist even into the fifth decade of life as so-called "late acne." The epidemiological data presented above indicate the magnitude of the problem of the described condition. Acne lesions, their causes, severity, location, and the impact they have on patients' mental health, are a major therapeutic concern. At the same time, the dominant contemporary cult of youth, health and beauty, encourage patients struggling with the problem of acne to seek methods to improve the condition of the skin, and thus increase their quality of life.

Due to the decrease in effectiveness of antibiotics used so far and the inconvenience associated with the use of retinoids, additional methods are sought to support the reduction of acne lesions. In view of this, the emphasis on the development of cosmetology from a scientific and experimental angle is of particular importance.

Objective assessment of the effectiveness of cosmetological treatments, is an important source of knowledge about the methods used. In this study, we set out to evaluate the effectiveness of selected treatments for the non-pharmacological reduction of acne lesions. Chemical exfoliation procedures with 20% or 30% azelaic acid solution and low power laser phototherapy were chosen because of the lack of such studies in the available literature..

The specific objectives of this study were:

- To evaluate the effect of selected treatments on the reduction of acne lesions characteristic of acne vulgaris based on disease severity according to the IGA scale.
- Evaluation of the effect of selected treatments on the reduction of acne lesions characteristic of acne vulgaris based on the severity of the disease according to the author's own scale.
- Evaluation of the effect of selected treatments on the reduction of acne lesions characteristic of acne vulgaris based on photographic documentation.
- Evaluation of the effect of selected treatments on the amount of sebum secreted, and thus on the activity of the sebaceous glands, made on the basis of sebumetric measurements.

The following conclusions are drawn from the study:

- The in-house study's treatment series resulted in a visible reduction in acne lesions. This is confirmed by the assessment according to both the IGA scale and the author's own scale. Improvements in skin condition were observed in all three study groups.
- Inhibition of sebaceous gland activity was observed after application of a low-energy laser emitting near-infrared radiation at 785 nm.
- Based on the results of sebumetric measurements, there was a post-treatment decrease in sebum secretion after chemical exfoliation treatments using both 20% and 30% azelaic acid solutions.
- In an in-house study, a long-lasting beneficial effect on the improvement of sebumetric parameters of acne-prone skin was observed after application of a 20% solution of azelaic acid. The results obtained from sebumetric measurements taken 3 months after the last treatment were lower than the baseline values and, moreover, also lower than those obtained 2 weeks after the study procedure. Thus, a long-term inhibitory effect on sebaceous gland activity was found.