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Aim: to determine the efficacy and safety of clobetasol propionate compared with fluticasone propionate in the form of ointment for the treatment of psoriasis patients.

Materials and methods. A total of 65 psoriasis patients were included in the study, 40 healthy individuals were included in the control group, all aged 14 to 65. Psoriasis patients were divided into 2 therapeutic groups: I – received topical treatment with fluticasone propionate; II – with clobetasol propionate. The severity of psoriasis was assessed by BSA and PASI index. Assessment of itching severity was carried out by a ten-point visual analogue scale. The quality of life was assessed according to the Ukrainian version of DLQI questionnaire.

Results. PASI index averaged 16.50 ± 0.65 points, and BSA index was 9.30 ± 0.94 % in the examined patients before the treatment. On average, the DLQI index in patients with psoriasis before the treatment was 13.80 ± 0.27 points. PASI index was lower in psoriasis patients treated with clobetasol propionate compared with the therapeutic group I patients. The ∆PASI indicator (%) at the end of the treatment was significantly lower in the therapeutic group compared with the group of patients who used clobetasol propionate for treatment of psoriasis. Patients who used clobetasol propionate had lower scores for pruritus and exoriation at the end of the treatment compared with patients from the I therapeutic group. The DLQI index at the end of the treatment was significantly higher in the I therapeutic group compared with its values in patients who used clobetasol propionate in the complex treatment.

Conclusions. The use of topical corticosteroid clobetasol propionate in the form of ointment is the effective treatment for psoriasis, which causes a rapid regression of psoriatic rashes, a decrease in PASI and BSA indices, a decrease in pruritus and its objective signs, and indirectly improves the quality of life.
Aim

The objective of the study was to determine the effectiveness and safety of the use of clobetasol propionate compared with fluticasone propionate in the form of ointment for the treatment of psoriasis patients in adolescence and adulthood.

Materials and methods

A total of 65 patients with psoriasis aged 14 to 65 years were included in the study. The control group included 40 healthy individuals of the same age. The recruitment of psoriasis patients and persons from the control group, as well as all the examinations of the enrolled patients, were carried out at the Community Institution “Zaporizhzhia Regional Dermatovenereology Clinical Dispensary” of Zaporizhzhia Regional Council.

Inclusion criteria for participation in the study:
1. Signed informed consent to participate in the study.
2. Male or female aged 14 to 65 years with diagnosis of chronic plaque psoriasis (for therapeutic groups) or without dermatological pathology (for the control group).
3. Consent to use highly effective methods of contraception throughout the study.
4. Patients who are not candidates for systemic psoriasis therapy.

Exclusion criteria for participation in the study:
1. The presence of active dermatological diseases, in addition to psoriasis, which may affect the results of the study in the opinion of an investigator.
2. The presence of other uncontrolled diseases that may affect the study results or lead to the risk of participation in the study.
3. Surgery performed within 12 weeks prior to enrollment in the study or planning of surgery during the study.
4. The presence or a history of oncological diseases.
5. Pregnancy or lactation in females.
6. Chronic alcohol or drug abuse.
7. The use of medications that may affect the study results within 12 weeks before inclusion in the study in the opinion of the investigator.
8. The presence of hypersensitivity to any component of the topical agents used in the study.

Psoriasis patients were randomized into 2 therapeutic groups: Group I – 28 patients who received topical treatment with fluticasone propionate; Group II – 37 people who received topical treatment with clobetasol propionate.

The prevalence of psoriatic process was assessed according to PASI index, which determines the percentage of psoriasis-affected body area. The severity of psoriasis was assessed according to PASI index, which
The severity of itching was assessed on a ten-point visual analog scale, with 0 points being the total absence of itching and 10 points being its maximum intensity. In addition, objective itching features, such as excoriations and nail plate changes (polished surface, thinning of the free edge) were evaluated. Each of the objective signs of itching was evaluated on a point scale, where 0 points was the absence of a sign, 1 point – its weak expression, 2 points – moderate sign, 3 points – a significant severity.

Assessment of the life quality in patients with psoriasis was conducted according to Ukrainian version of DLQI questionnaire. Changes in DLQI index during treatment are an objective indicator of treatment outcomes. Therefore, to evaluate the effectiveness of treatment we determined the percentage decrease in DLQI index ($\Delta$ DLQI, %) [1].

All obtained digital data were processed statistically. A paired Student’s criterion or Wilcoxon’s Rank-Sum criterion was used to compare the pre- and post-treatment group scores depending on the normality of the differences distribution. The normality of the data distribution was checked using the Shapiro–Wilk test at a significance level of 0.01. When using all statistical methods (except the Shapiro–Wilk test), the significance level was 0.05. Statistical processing of the results was performed using the software package Statistica for Windows 13 (StatSoft Inc., № JPZ8041382130ARCN10-J).

**Results**

Before the treatment, PASI index averaged 16.50 ± 0.65 points in the examined patients, and BSA index was 9.30 ± 0.94 %.

In contrast to healthy individuals, in some patients with psoriasis, the clinical examination revealed objective signs of itching, such as excoriation and changes in the nail plates (polished surface, thinning of the free margin). The score of changes in the nail plates before the treatment averaged 0.23 ± 0.04 points, and the score of excoriations was 0.33 ± 0.07 points. In addition, patients with psoriasis assessed the intensity of itching on a 10-point visual analog scale. On average, they rated itching at 4.57 ± 0.54 points.

Deterioration of skin in general, the presence of skin rash and itching led to a decrease in the quality of life in psoriasis patients. This caused an increase in DLQI index. The average DLQI index in patients with psoriasis before the treatment was 13.80 ± 0.27 points.

We analyzed the study results at the end of the treatment course. First of all, good tolerability of fluticasone propionate and clobetasol propionate should be noted. The course of topical corticosteroids did not exceed 10 days, and during this time, neither local nor systemic side effects were noted. Although it should be emphasized that long-term and intensive treatment with highly active corticosteroids can lead to dilation of superficial blood vessels, thinning of skin, formation of stretch marks, hypertrichosis and other adverse effects. Therefore, the data obtained have proved the safety of fluticasone propionate and clobetasol propionate application during 10 days.

The use of clobetasol propionate caused rapid regression of psoriatic lesions. The area of the affected skin and PASI index changed in patients with psoriasis during treatment. The results of skin assessment are given in Table 1. This table shows, that there was a significant decrease in BSA and PASI indices after treatment in patients from both treatment groups, compared with the group of patients before the treatment. These data indicate an improvement in clinical picture of the disease, reduction of skin lesions, regression of erythema, infiltration and peeling. It should be noted that PASI index was lower in psoriasis patients who received clobetasol propionate, compared with therapeutic group I of patients. The rate of $\Delta$PASI (%) at the end of the treatment was significantly lower in patients from therapeutic group I, compared with the group of patients who used clobetasol propionate in therapy of psoriasis.

In addition, there was a higher percentage of patients who reached PASI 50 (patients in whom PASI index decreased by 50 %) in the group of patients who used clobetasol propionate, compared with therapeutic group I of patients. These data have proved the positive clinical effect of clobetasol propionate in the treatment of psoriasis.

The decrease in skin itching and its objective signs (changes in the nail plates and the presence of excoriations) were fixed after treatment in patients with psoriasis (regardless of the therapeutic group) (Fig. 1). We obtained a significant difference in the score of itching before the treatment and after its completion between the patients of both study groups. When comparing the scores of itching and the severity of its objective signs in patients from different therapeutic groups after treatment, we have found that patients who used clobetasol propionate had lower scores of itching and excoriation, compared with subjects from therapeutic group I.

We also evaluated the effect of clobetasol propionate on the quality of life in patients with psoriasis. Table 1 shows, that in patients from both therapeutic groups on the treatment, DLQI index was significantly reduced, which indicates an improvement in their quality of life compared with patients before the treatment. It should be noted that DLQI index at the end of the treatment was significantly higher in the therapeutic group I patients, compared with its values in patients who used clobetasol propionate. In addition, we have found a significant difference in DLQI (%) between therapeutic groups of patients I and II. These data once again emphasize the effectiveness of clobetasol propionate in the treatment of patients with psoriasis. The results suggest a significant positive effect from the use of topical corticosteroid clobetasol propionate for both reduction of clinical manifestations of psoriasis and indirect improvement in the quality of life.

**Discussion**

According to studies conducted by some authors [5,16,20], mometasone furoate, hydrocortisone hydroxybutyrate, methylprednisolone aceponate and fluticasone (topical cor-
Conclusions

1. The use of clobetasol propionate for psoriasis treatment caused significant decrease in PASI index. The rate of $\Delta$PASI (%) at the end of the treatment was significantly lower in patients who used clobetasol propionate, compared with the group of patients who used fluticasone propionate. Patients with psoriasis who used clobetasol propionate had lower scores of itching and excoriation compared with subjects who used fluticasone propionate.

2. Patients with psoriasis who used clobetasol propionate had lower scores of itch and excoriation compared with subjects who used fluticasone propionate.

3. DLQI index at the end of the treatment was significantly higher in therapeutic group using fluticasone propionate compared with its values in patients who used clobetasol propionate.

Table 1. PASI, BSA and DLQI indices in patients with psoriasis during treatment

| Indices, units | Patients before treatment | therapeutic group I (who used fluticasone propionate) | therapeutic group II (who used clobetasol propionate) |
|---------------|--------------------------|------------------------------------------------------|----------------------------------------------------|
| PASI index, scores | 16.50 ± 0.65 | 10.7 ± 1.0* | 8.4 ± 0.5* |
| $\Delta$PASI, % | 57.5 ± 2.5 | 65.4 ± 2.1* | 69.9 |
| BSA index, % | 9.30 ± 0.94 | 4.20 ± 0.62* | 2.70 ± 0.67* |
| DLQI index, scores | 13.80 ± 0.27 | 10.50 ± 0.31* | 8.90 ± 0.23* |
| $\Delta$DLQI, % | 31.3 ± 1.7 | 38.7 ± 1.9* | |

# significant difference (P < 0.05) when compared with the corresponding indicators in the group of patients before the treatment; *: significant difference (P < 0.05) when compared with the corresponding indicators in therapeutic group I after the treatment.

4. The use of the topical corticosteroid clobetasol propionate in the form of ointment is an effective treatment for psoriasis, which caused a rapid regression of psoriatic rash, reduced PASI and BSA indices, decreased itching and its objective symptoms, and indirectly improved the quality of life.

Prospects for further research. Further research will be devoted to comparison of safety and efficacy of topical corticosteroids with different potency for allergic dermatological diseases. The practical significance of the study is to expand the use of topical corticosteroids with high potency in the treatment of patients with psoriasis.

Funding

The work was a fragment of the comprehensive research work of Zaporizhzhia State Medical University “Development of methods of therapy and prevention of relapses of chronic dermatoses and sexually transmitted diseases, taking into account the peculiarities of homeostasis of patients and concomitant pathology” (State registration № 0113U000800), 2014–2019.

Zaporozhye medical journal. Volume 22. No. 6, November – December 2020  ISSN 2306-4145  http://zmj.zsmu.edu.ua 831
Reference

[1] Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Pottinger, E., Smith, C. H., Jabbar-Lopez, Z. K., Yiu, Z. Z., Bale, T., Burden, A. D., Coates, L. C., Craddock, M., Hooke, T., MacMahon, E., Murphy, R., Nelson-Piercy, C., Owen, C. M., Parslew, R., Peleva, E., Po