



## INNOVATIVE APPROACH TO THE TREATMENT OF ATOPIC DERMATITIS

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### Annotation

Atopic dermatitis is a chronic inflammatory cutaneous disease, which demands a prolonged treatment. A modern view on the main approaches to treatment of atopic dermatitis in children and adults are analyzed in this article. The treatment is based on the permanent use of emollients in order to achieve an anti-inflammatory effect topical calcineurin inhibitors (tacrolimus and pimecrolimus), and short courses (5 days) of topical corticosteroids during relapses.

**Keywords:** children, atopic dermatitis, emollients, therapy, tacrolimus.

### Аннотация

Атопический дерматит хроническое воспалительное заболевание кожи, которое требует длительного лечения. В статье проанализированы современные представления об основных подходах к терапии атопического дерматита у детей и взрослых. Лечение базируется на постоянном использовании эмолентов, с целью достижения противовоспалительного действия топических ингибиторов кальциневрина (таких как такролимус и пимекролимус), а при обострении болезни топических глюкокортикоидов коротким курсом (5 сут).

**Ключевые слова:** дети, атопический дерматит, эмоленты, терапия, такролимус.

### Aim

To improve the efficiency and safety of treatment of patients with atopic dermatitis. Materials and methods: under observation during 2010–2020. There were 83 patients aged 2 to 55 years with a diagnosis of Atopic dermatitis, moderate to severe course. The duration of the disease in the observed patients averaged 14 years. Depending on the prescribed treatment, the patients were divided into 2 representative groups. Patients of the main group (41 people) received gamma-D-glutamyl-D-tryptophan disodium salt as the main systemic treatment. Children from 12 years of age and adults gamma-D-glutamyl-D-tryptophan disodium salt was prescribed 1-2 ml (depending on body weight) intramuscularly daily for 2-3 7-day





courses with breaks of 2 days, then 1- 2 doses 2 times a day intranasally as a spray for 2-3 7-day courses. Patients of the comparison group (40 people) received prednisolone as the main treatment at the rate of an initial dose of 0.5–0.75 mg per kg of body weight. Additionally, in the presence of itching, patients were prescribed antihistamines of the second generation. Topical steroids, calcineurin inhibitors, and emollients were used as topical treatment. Before and after the end of treatment, the observed patients underwent a study of white and red blood, the functional state of the liver, and indicators of cellular and humoral immunity.

## Discussion

The main development factor is considered to be hereditary, as well as the presence of other pathologies of an allergic nature (food allergy, bronchial asthma, allergic rhinitis). The disease can proceed in a mild, severe or moderate form, exacerbations depend on contact with certain allergens.

The symptomatic intensity of AD depends on climatic conditions. The disease worsens mainly in winter, and in summer there is a remission or some weakening of symptoms. Leading symptoms of atopic dermatitis:

- Dryness, peeling of the skin, severe itching; the appearance of erythema, papules, swelling;
- The formation of erosive areas, weeping;
- Pustular lesions;
- Cracked palms and soles;
- Lichenification of the skin;
- Numerous combs;
- Hair loss at the back of the head;
- Covering the bends with shiny flesh-colored plaques;
- Peeling, pigmentation of the eyelids;
- Jamming and cracks on the lower lip.

The clinical manifestation of symptoms depends on the age factor. Atopic dermatitis begins mainly in early childhood, but subsides somewhat by the school years. A new impetus may be puberty.

Atopic dermatitis is an immune dependent disease. A mutation in the genes leads to the encoding of a structural protein in the skin. This is the most powerful factor in the development of the disease, since the function of the structural protein is the formation of a skin barrier that prevents moisture loss and the penetration of microorganisms and allergens.



For a preliminary examination, the clinical picture and symptoms of the disease are quite enough. To confirm the diagnosis, laboratory tests are prescribed. A differentiated diagnosis is mandatory. The patient is referred for examination to specialists in other medical fields to exclude diseases that have similar symptoms. Biopsy sampling is performed in exceptional cases.

## Results

The effectiveness of treatment in the compared groups was at the same level. The indicators of red and white blood, serum cortisol, cellular and humoral immunity in patients of the main group were within the normal range, while in 65% of patients included in the comparison group, the level of lymphocytes, monocytes, cortisol significantly ( $P > 0.5$ ) decreased. Three patients treated with prednisolone had elevated blood glucose levels.

## List of Used Literature

1. Saavedra J., Boguniewicz M., Chamlin S., Lake A., Nedorost S., Czerkies L., Patel V., Botteman M., Horodniceanu E. Patterns of clinical management of atopic dermatitis in infants and toddlers: A survey of three physician specialities in the United States. *J. Pediatr.* 2013; 14: 168-171.
2. Kapoor R., Menon C., Hoffstad O., Bilker W., Leclerc P., Margolis D. The prevalence of atopic triad in children with physician-confirmed atopic dermatitis. *J. Am. Acad. Dermatol.* 2008; 9: 68-73.
3. Leung D., Nicklas R., Li J., Bernstein I., Blessing-Moore J., Boguniewicz M., Chapman J., Khan D., Lang D., Lee R., Portnoy J., Schuller D., Spector S., Tilles S. Disease management of atopic dermatitis: an updated practice parameter. Joint Task Force on Practice Parameters. *Ann. Allergy Asthma Immunol.* 2004; 9 (Suppl. 2): 1-21.
4. Мачарадзе Д. Ш. Атопический дерматит: современные методы диагностики и терапии. Уч.-метод. пос. М.: РПК «Линия-Принт». 2011. 75 с.
5. Suarez-Farinas M., Dhingra N., Gittler J., Shemer A., Cardinale I., de Guzman Strong K., Krueger J., Guttman-Yassky E. Intrinsic atopic dermatitis shows similar Th2 and higher Th17 immune activation compared with extrinsic atopic dermatitis. *J. Allergy Clin. Immunol.* 2013; 132: 361-370.
6. Segal A., Ellis A., Kim H. CSACI position statement: safety of topical calcineurin inhibitors in the management of atopic dermatitis in children and adults. *Allergy Asthma Clin. Immunol.* 2013; 9 (1): 24-29.





7. Fleischer A., Boguniewicz M. An approach to pruritus in atopic dermatitis: A critical systematic review of the tacrolimus ointment literature. *J. Drugs Dermatol.* 2010; 9: 488-498.
8. Meingassner J., Aschauer H., Stuetz A. Pimecrolimus permeates less than tacrolimus through normal, inflamed, or corticosteroid-pretreated skin. *Exp. Dermatol.* 2005; 14: 752-757.
9. McCollum A., Paik A., Eichenfield L. The safety and efficacy of tacrolimus ointment in pediatric patients with atopic dermatitis. *Pediatr. Dermatol.* 2010; 9: 425-436.

