

# Eczema. Dermatitis



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**Eczema**



# *Etiology and pathogenesis of eczema.*

It is necessary to comprehend that eczema is a polyetiological disease with complex pathogenesis, where the main role is played by allergic factors, affecting the organisms with changed reactivity of the central and vegetative nervous systems. The autoallergic phenomenon is of certain significance, which is due to the presence of focal infection, visceral and endocrinopathy, immune conditions. Eczema starts with the formation of monovalent sensitization (increased sensitivity towards a certain allergen) which afterwards may transfer into polyvalent sensitization.

# Pathogenic types of eczema

**True eczema** – the main role in pathogenesis is played by a polyvalent sensitization and pronounced neurogenic disturbances. Clinical features: disseminated, symmetric and blunt borders of the lesions, intense itching; primary lesion is a punctulated microvesicle (“serous wells”), crusts with small foci, fine-laminar desquamation.



# Pathogenic types of eczema

## **Microbial eczema.**

Sensitization basically is monovalent (allergen is pyococcus, sometimes parasitic fungi). Primary location is asymmetrical. The lesions have sharp borders and rough outlines; primary lesion is micropustule, exudation is considerable, crusts are rougher and more massive. Around the lesions there are separations resembling impetigo or folliculitis. One of the varieties of microbial eczema is paratraumatic eczema, developing around infected wounds, trophic ulcers, fistulas, etc.

# Microbial eczema.

## *Nummular eczema*

This form is characterized by mildly elevated and sharply demarcated foci of affection with regular round contours and a diameter of 1-2 cm and more; there is edema, erythema, exudative papules and pronounced drip weeping. It is a variety of microbial eczema.



# Microbial eczema.

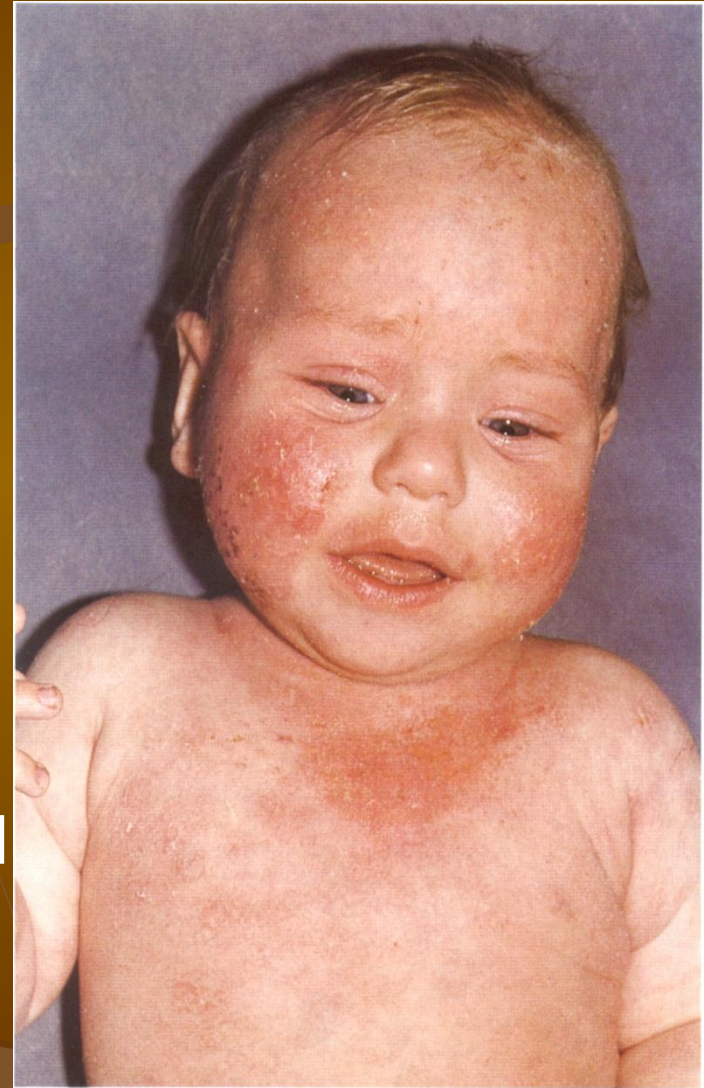
## *Varicose eczema.*

The varicose complex of symptoms in the lower limb facilitates the development of this disease. It is localized in the region of the varicosity, around the varicose ulcers, and in the areas of sclerosed skin. Factors favoring the development of the disease are injuries, hypersensitivity to drugs used in the treatment of varicose ulcers, and maceration of the skin in application of dressing.

The clinical picture is characterized by pleomorphic lesions, sharply circumscribed boundaries of the foci, and moderate itching, which makes varicose eczema similar to microbial and paratraumatic forms in clinical manifestations.

# Infantile eczema

The disease begins in infancy. Eruptions appear on the face and then spread to other body areas. The skin of the face becomes red and swollen, and copious coalescing exudative papules and small vesicles are formed on it; here and there they are covered with massive brownish crusts which leave weeping eroded surfaces. Besides the weeping foci described above, children with infantile eczema may have macular Seborrheic eruptions on the face, trunk, and limbs. Infantile eczema is therefore characterized in most cases by the simultaneous presence of the signs of true, microbial, and Seborrheic forms of eczema. The lymph nodes are enlarged.

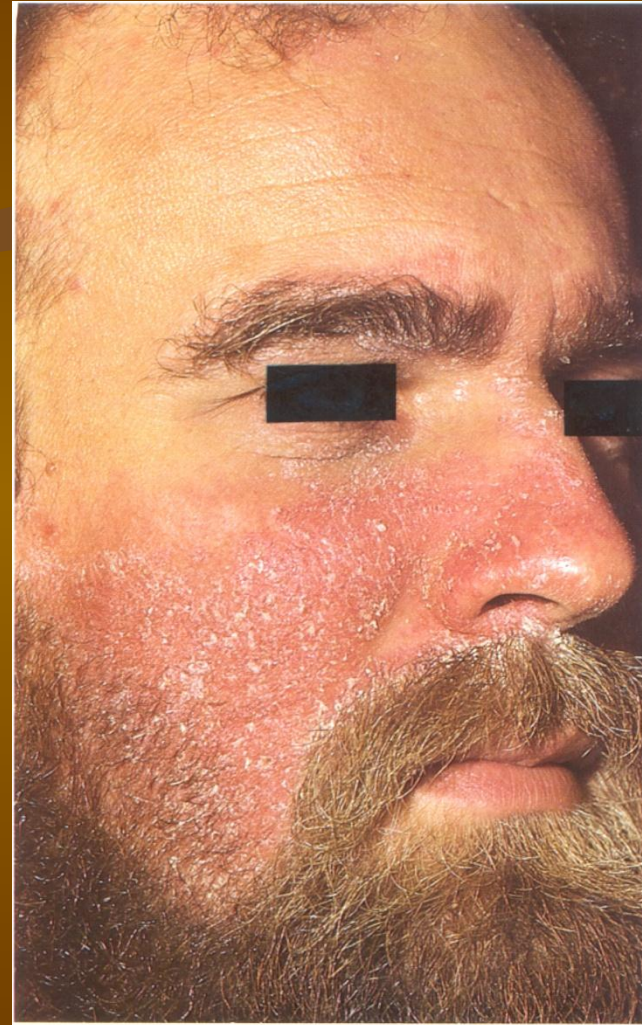




# Seborrheic eczema.

The main cause of this disease is dysfunction of sebaceous glands, change in composition of the cutaneous fatty secretions or endocrinopathy. Main clinical features are localization in the region of large folds, on the face, hairy part of the head, between the scapula. Nodes covered with fatty scales are formed due to hyperemia.

Seborrheic eczema is localized on the scalp, face, chest and between the shoulder blades. Copious stratified yellowish crusts and scales are formed on the scalp; the hair on the affected areas is shiny and sometimes stuck together in bundles, and seropurulent exudation is often found in the fold behind the ears. The patient complains of itching, which may precede the clinical manifestations.



# Eczema herpeticum

It develops in children during contact with patients having herpes simplex. Development of grouped and then fused vesicles with central grooves are observed on the skin. Contents of the vesicles are serous, hemorrhagic and sometimes serous-purulent. After healing, a scar is left. Skin rash develops because of serious general condition of the baby ( $T=38-39^{\circ}\text{C}$ ), leukocytosis. Complications of the disease may be pneumonia, otitis, meningitis.

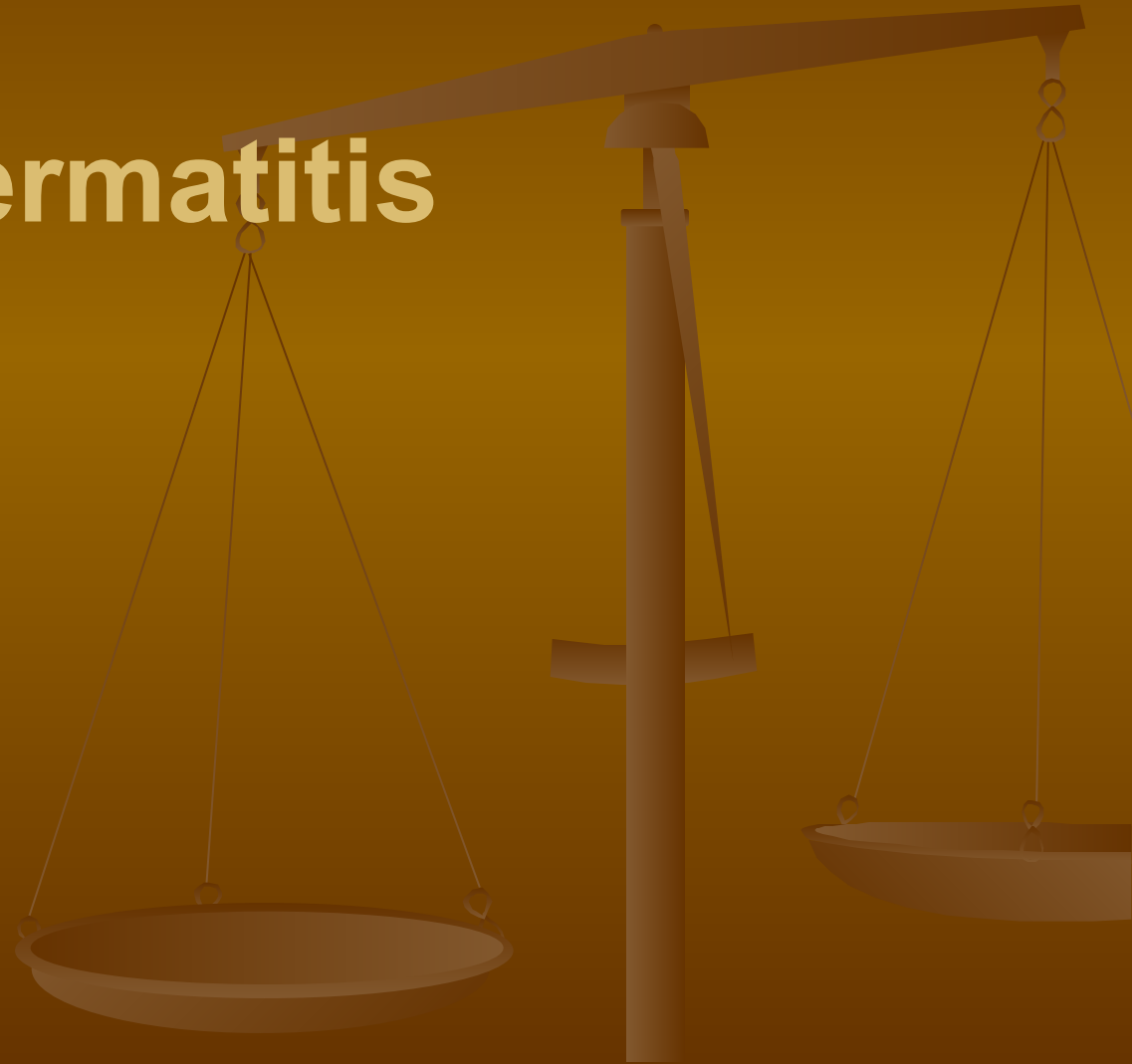


# Treatment

Consists of general and external treatment. In general treatment the basis is the principle of nonspecific hyposensitizing and normalizing action on the nervous system. This can be reached by the use of calcium (CaCl<sub>2</sub>, calcium gluconate), magnesium sulfate, sodium thiosulfate, antihistaminic drugs (demedrol, tavigil, pipolphen, deprazine, diazoline and others), different neurogenic drugs (bromides, trioxazin, seducsen, elenium and others). Administration of the preparations should be individual, taking into account the patient's response to treatment. After eczema becomes chronic, different types of nonspecific immunotherapy and stimulation may be prescribed. The use of glucocorticoids internally is recommenced in serious cases and in generalized forms of eczema, which are resistant to other forms of treatment. Local treatment should be symptomatic depending on the stage of eczema. It is important to choose the correct form of drugs. During acute moist eczema: local fomentation (wet-drying dressing) with 2% boric acid, Burov's fluid, lead water, 0.5% resorcin, 0.5% tannin, riveanol 1:1000 and others.

During the subacute stage, an agitated mixture and oil are used, later on fat pastes and ointments are applied. In the stage of uncompleted remission and in between the attacks, the main part in the functional rehabilitation of the patients with eczema is played by health resorts and as well as the use of medicinal herbs.

# **Dermatitis**



# Simple dermatitis

Simple dermatitis may be caused by *physical*, *chemical*, and *biological factors*.

Характерные особенности простого контактного дерматита следующие: исключительное возникновение на участке действия раздражающего фактора и отсутствия повышения чувствительности и тенденции к распространению или периферийному росту. Кроме того, такие поражения дерматита одна или две недели после действия раздражителя прекращаются. Простой контактный дерматит обычно острый и происходит скоро после подвергания раздражителю.

One of the forms of dermatitis in children is called intertrigo. It develops from irritation of the skin by the folds of diapers and clothes and is manifested by hyperemia, epidermal maceration, in some cases by oozing (when erosions form), a sensation of burning, and pain.



# Allergic dermatitis

Arises under the effect of external irritants of allergic nature, Allergic dermatitis occurs in patients with increased sensitivity to a definite substance, the allergen. Hypersensitivity may be congenital, in which case the condition is called idiosyncrasy. The main feature distinguishing eczema from allergic dermatitis is the resolution of the latter following removal of the etiological factor, which is identified by means of positive skin tests.



# *Treatment*

First of all the cause of allergic dermatitis must be found and eliminated. External anti-inflammatory treatment, which depends on the morphological features of the eruption, is supplemented without fail by hyposensitization treatment, the prescription of sedatives, antihistamines, steroid hormones, and vitamins.

The management of patients with allergic dermatitis is therefore planned on the same principles as the treatment of eczema patients, but before all else the effect of the stimulating and sensitizing factors is removed.