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ERYTHEMA – A MEDICAL OR AESTHETIC PROBLEM?

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Abstract

Erythema is a medical and cosmetic problem. This exanthema is really visible and usually extensive which causes that patients feel discomfort due to the unsightly appearance of the skin. Unfortunately in a whole range of diseases such as infections, erythematous dermatosis, erythematous-exfoliative and follicular dermatoses, certain allergic diseases and diseases of connective tissue cosmetologist do not offer effective treatments to reduce skin lesions. Often make-up is the only and not always possible option. However, there is a group of diseases in which akin care is as important as a cure, they are: atopic dermatitis. psoriasis and rosacea among others. Cosmetology has many possibilities to deal with these illnesses and care about sick skin should be integral part of therapy, without which the final effects of treatment will be lessened.

Key words: skin, erythema, aesthetic medicine

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Introduction

Bacterial skin diseases are a medical problem. They are treated with antibiotics, and after they disappear, they usually do not leave any scars or discoloration. However, during their duration, skin changes are visible and their appearance may pose a problem for the patient [1].

Erysipelas

Erysipelas is a disease caused by the streptococcus Streptococcus pyogenes. The source of infection is humans (the carrier rate is approximately 10-20%, with infection more common in children), and the cause may be mechanical trauma or impairment of venous and/or lymphatic circulation. Skin lesions include swelling and acute inflammation of the skin and subcutaneous tissue. They are very clearly demarcated, even as if embanked, from the surroundings. The shape of the focus is irregular, of considerable cohesion, and the skin is smooth, shiny, taut, excessively warm and red [1-3].

It also happens that bacteria enter the skin from intracorporeal inflammatory foci. The disease begins suddenly. There is high fever, chills, and symptoms of general malaise [1-3].

The most common location of erysipelas is the face and limbs (mainly lower). With appropriate treatment, the patient's condition usually improves very quickly, but in some cases it may take up to a week to see the results [1-3].

Erysipelas is a big cosmetic problem for the patient. It is a disease that most often appears in exposed places, and the erythema is very visible. Fortunately for the patient, as a bacterial disease with appropriate treatment, it does not last very long (about 2 weeks) [1].

Pityriasis erythrasma

Pityriasis erythematosus is a disease whose symptoms are a red-brown patch that may peel on the surface, accompanied by itching [1, 4].

The disease is caused by infection with the Corynebacterium minulissmum. This bacterium normally lives on the skin and is not very infectious. Unfortunately, the conditions for its reproduction become almost ideal when the patient suffers from excessive sweating, diabetes or obesity. It penetrates the skin through damaged or swollen epidermis, hence the typical places where disease lesions most often appear, i.e. the groin, armpits, intergluteal cleft, inframammary folds, navel, or spaces between the toes. Pityriasis erythema is one of the most common superficial bacterial skin diseases. Due to the fact that this disease is chronic and relatively visible, it may cause patients aesthetic problems [1, 4].

Herpes simplex

Herpes simplex is a disease caused by HSV (herpes simplex virus) infection - most often type 1 or 2. HSV-1 is responsible for lesions located around the natural facial openings, and HSV-2 causes infections in the area of intimate organs and is transmitted mainly sexually. Infection may occur before birth (intrauterine) from the mother. The virus in its latent form persists in sensory ganglia. It attacks in states of reduced immunity, after strong sunlight or body cooling, injuries, stress, and may also accompany other diseases. In addition to general symptoms such as chills or an increase in temperature, skin symptoms also appear. The primary eruption consists of vesicles containing serous content appearing on an erythematous base [5, 6].

Herpes is a common disease because most of the population carries HSV. Most often, it is not a serious medical problem, but it is recurrent and its most common location is the labial area, so it can be a big cosmetic problem. Hence, for example, herpes patches, which, in addition to local treatment, are also intended to camouflage it [5, 6].

Shingles (Herpes zoster)

Shingles is an infectious disease caused by the herpes virus varicella. It develops in people who have previously had chickenpox. This virus persists in a latent form, in sensory ganglia, and appears during periods of weakened immunity. The first symptom of shingles is sharp neuralgia-like pain. After 2-3 days, bullous eruptions containing serous content appear on an erythematous base. Over time, the contents of the blisters become cloudy and then dry out, forming scabs, or burst, resulting in erosions [5].

The disease lasts about 2 weeks, but unfortunately its most common location is the face and torso, so it is a disease that may cause aesthetic problems. Moreover, the efflorescences are quite large, so it is difficult to camouflage them. In treatment, in addition to generally administered antiviral drugs, it is also important to use local disinfectants and drying preparations [5].

Pityriasis versicolor

The etiological agent of this disease is the fungus Malassezia furfur. This microorganism feeds on the epidermis and sebum, so people who are most at risk of infection are those during puberty or those taking medications that cause hormonal changes. More infections are also noticed during humid and warm weather. Eruptions appear on the back, neck, scalp, chest, and sometimes also on the face, forearms and lower limbs. They have the form of pink-brown spots that can be quite large (3-4 mm in diameter), with clearly marked edges. They are slightly exfoliating, irregular, sometimes forming confluent spots. In a Wood's lamp, the efflorescences show yellow fluorescence. The changes do not tan, so they are more visible in the summer - paler than tanned skin. This is caused by fungi blocking melanin synthesis. The disease tends to recur [7, 8].

Rosacea

Rosacea is a chronic and recurrent inflammatory skin disease. Many patients seek effective therapy due to the impact rosacea has on their physical appearance. There are no clear guidelines for the treatment of this disease. It usually focuses mainly on reducing symptoms. Rosacea is most commonly seen in people with a Northern European or Celtic phenotype. The incidence of rosacea is difficult to assess due to variable clinical manifestations and the wide range of skin disorders that share similar features. It is estimated that 1 to 10% of people with fair skin suffer from this condition. [9].

Rosacea occurs in 3 phases. The first phase, called erythema, is usually caused by physical stimuli such as the sun, alcohol, stimulants or significant temperature differences, or mental stimuli, the impact of which leads to the appearance of paroxysmal erythema on the face. Over time, this erythema becomes permanent in the form of telangiectasia. Then, rosacea moves into the second phase - papular pustulosis, in which, as the name suggests, in addition to permanently dilated blood vessels, small papules and pustules also appear on the facial skin. During this period, approximately 10% of patients may also experience inflammation of the eyelids, conjunctiva, and sometimes even cornea. The hypertrophic phase of rosacea occurs very rarely, and when it does occur, it occurs mainly in male alcoholics and is characterized by hypertrophy of the connective tissue of the nose and sebaceous glands. Additionally, patients with this condition may experience burning and dry skin. The etiology of the disease is still unknown. Factors suspected of contributing to the occurrence of rosacea include: abnormalities in innate immunity, inflammatory reactions to cutaneous microorganisms, skin damage caused by ultraviolet light, vascular dysfunction, or genetic predispositions [9].

Cosmetology has many options for alleviating the symptoms of rosacea. Cosmetic treatments should be an important component of rosacea treatment, because skin care is extremely important for this condition. Remember to use very delicate cosmetics, as many ingredients may irritate affected skin. It is worth using emollients that help rebuild the natural protective barrier of the epidermis. Patients treated with 0.75% metronidazole gel and concurrently using a moisturizing cream twice daily experienced significant symptom relief. There was a reduction in skin dryness, roughness and the associated discomfort. Patients should wash their facial skin at least once a day and avoid soaps and use synthetic detergents, which are usually better tolerated. Patients should also avoid products that irritate the skin, such as astringents and chemical exfoliants (e.g. alpha-hydroxy acids), mechanical peels, and the use of rough sponges or cloths. Moreover, cosmetics should be easy to remove to avoid the need for strong make-up removal. It is recommended to use creams with at least SPF 30. Makeup may also be important for patients' better physical well-being. Skin redness is well camouflaged by a green concealer, which should be applied under foundation. For telangiectasia, it is worth using laser therapy, during which light energy is absorbed by haemoglobin in the skin vessels, which leads to the heating of the vessels and their coagulation. Topical application of azelaic acid, which is a naturally occurring dicarboxylic acid with anti-inflammatory and antioxidant properties, may also be helpful in relieving rosacea symptoms. Like metronidazole, azelaic acid reduces papular and pustular lesions and may also reduce erythema [10].

Psoriasis

Psoriasis is a chronic, relapsing, complex immune-mediated inflammatory disease that occurs in genetically susceptible individuals. Early concepts of the pathogenesis of psoriasis focused mainly on the hyperproliferation of keratinocytes. Currently, this dysregulation of the immune system is considered to be the main reason for the appearance of this disease [11].

Significantly accelerated proliferation and impaired differentiation of keratinocytes are characteristic of psoriasis. The appearance of psoriatic lesions is also influenced by the complex infiltration of the dermis and epidermis, mainly by leukocytes,

which are involved in both the innate and adaptive immunity of psoriatic skin. Interactions between dendritic cells, T lymphocytes, keratinocytes, neutrophils and cytokines released from immune cells probably contribute to the initiation and maintenance of the cutaneous inflammation characteristic of psoriasis [12, 13].

The symptoms of psoriasis are skin lesions characterized by the appearance of dermal-epidermal papules covered with scales of highly keratinized epidermis, tending to merge into larger foci. The disease affects both sexes equally, and its occurrence is influenced by geographical location - the greater the distance from the equator, the more cases. Other factors that increase the likelihood of this condition include: smoking, obesity, taking certain medications, infections (e.g. frequent tonsillitis), alcohol consumption, mechanical injuries, vitamin D deficiency, or stress [14].

Depending on the location of the lesions, we can distinguish psoriasis of the scalp, nails, palmar-plantar and intertriginous psoriasis. There is also a division according to the shape and size of the eruptions, here we distinguish psoriasis: micropapular, follicular, nummular, plaque and vortex. The most common division distinguishes four types of psoriasis: common (psoriasis vulgaris), pustular (psoriasis pustulosd), articular (psoriasis arthropaticd) and erythroderma psoriasis (erythrodermia psoriatica). However, based on the influence of genetics on the disease, two types of psoriasis are distinguished: type I - juvenile, occurs before the age of 30, and type II - adult, appears after the age of 40 and has a milder course [15].

Psoriasis vulgaris - in this type, lesions appear anywhere on the skin, including the scalp, in the form of individual lumps that may merge with each other. spread peripherally and create various types of lesions (droplet-like, money-shaped, ring-shaped, swirl-like, etc.) [14, 15].

Three symptoms are typical for psoriasis vulgaris:

1. stearin candle symptom - after scraping off the lump of grey scales, we can see skin as smooth as a stearin candle.
2. Auspitz sign - when the epidermis is scratched more severely and pinpoint bleeding occurs. This is because the blood vessels in diseased skin are shallower than in a healthy person.
3. Koebner's symptom - psoriatic papules appear in the place of even minor skin damage, e.g. scratches or abrasions.

Psoriatic lesions most often occur in places such as elbows and knees, scalp, fingernails, toenails and the lumbar area. Sometimes even the entire skin may be involved. Characteristic symptoms of psoriatic lesions on the nails are spots that look like spilled drops of oil and usually symmetrical pits on the nail plates (so-called nails) [14, 15].

Pustular psoriasis - affects the hands and feet, usually their marginal or central parts, where erythematous, exfoliative and sometimes exudative lesions appear. It is also characterized by a positive Nikolski's sign - the epidermis shrinking as a result of pressure. This is a mild form of psoriasis, but unfortunately chronic [14].

Psoriasis arthritic - usually occurs in people who suffer from psoriasis vulgaris. It may manifest itself as pain and swelling. joint stiffness or deformation. Gout and enthesitis are also common in these patients [14].

People with psoriasis are usually in a very poor mental condition due to their condition. They feel that they are stigmatized. This condition causes them stress and often leads to depression. Undoubtedly, psoriasis is both a medical and cosmetic problem. It is a chronic disease with visible symptoms that gives patients complexes. In the treatment of psoriasis symptoms, glucocorticosteroids, emollients, vitamin D analogues, tar shampoos, etc. are mainly used. UV light therapy is also often used, which slows down keratinization and has anti-inflammatory effects. One of the methods of UV light therapy in the treatment of psoriasis is the use of an excimer laser with a wavelength of 308 nm. The laser allows the treatment of only diseased parts of the skin. In this way, much higher doses of UVB radiation can be administered to psoriatic plaques. Some studies suggest that laser therapy produces faster results than conventional phototherapy. In the care of diseased skin, it is very important to use emollients that soften, moisturize and lubricate the skin, and also help rebuild the disturbed lipid coat of the epidermis. In the care of diseased skin, urea is also a valuable cosmetic ingredient, which when used in appropriate concentrations supports the process of exfoliation of the epidermis. It is worth ensuring that the cosmetics used by the patient contain anti-inflammatory substances, such as aloe, liquorice root extract, or oatmeal. Sick skin can also be relieved by salt baths that soothe dry skin or mud compresses [15-17].

Blush - vascular skin

Blushing is a hereditary tendency and occurs in people with fair skin. Most of society considers it an expression of excellent health and a "sign of youth", but in practice it indicates delicate, thin and shallowly vascularized skin. Flushing may appear in the cold, after eating hot or spicy foods, as a reaction to stress [18, 19].

The reasons for having such skin vary. It occurs much more often in women due to the oestrogen, which relaxes the muscles of blood vessels. Vascular skin often appears after pregnancy as a result of stress and hormonal changes. Inadequate skin care and living in a cold, windy climate also have a negative impact on the skin. In stressful situations, blushing appears because the released adrenaline has vasodilating properties, and blushing during physical exercise, drinking alcohol or eating hot food is the result of the body's thermoregulation. Bad habits, such as smoking, also contribute to the formation of vascular skin, reducing the layer of collagen under which blood vessels are hidden. It is very important to remember that such skin has the greatest tendency to develop rosacea in the future. Therefore, one should pay special attention to its care. It is worth using creams with a high filter and cosmetics that soothe the skin, which may contain, for example, horse chestnut extract, vitamin C and vitamin K - substances that strengthen blood vessels. Additionally, it is worth using preparations that protect the natural skin barrier and help in its reconstruction, such as ferulic acid, which gently

exfoliates and stimulates the regeneration of the epidermis, or arginine. Changing your lifestyle and having an appropriate diet are also very important, i.e. avoiding hot and spicy foods and alcoholic beverages [18]. Makeup is great for temporarily masking redness and, if one chooses the right cosmetics, it will also protect the skin. To remove telangiectasia, it is worth using laser therapy and IPL treatments. thermocoagulation, electrocoagulation or cryotherapy [19].

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