THE SUBSTANTIATION OF THE RIGHT CHOICE OF ANTI-ANNIVERSARY CREAM ON THE BASIS OF THE ANALYSIS OF IT'S ACTIVE COMPONENTS

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Introduction. Skin aging is an inevitable physiological process that reflects the aging of the body as a whole. The visible signs of skin aging include dry skin, dull, uneven complexion, clear folds and deep wrinkles on the skin, loss of skin density, pore enlargement and appearance of age spots. The correct choice of anti-aging face cream can slow down the natural processes of biological aging of the skin and protect it from the damaging effects of exogenous factors.

The purpose of this work was the theoretical substantiation of the correct choice of anti-aging cream based on the analysis of the composition of its active components.

Materials and methods. Analysis of scientific literature.

Results. According to the modern ideas, one of the first signs of skin aging is its dryness, which arises as a result of increase water losses due to disruption of the skin hydro barrier - complex of keratinocytes and epidermal lipids. The restoration of normal skin hydro barrier is promoted by such active components of cosmetics as hyaluronic acid, propylene glycol, soya hydrolyzate, carbamide (urea), panthenol, some kinds of vegetable oils and proteins.

Another visible sign of skin aging is a dull, uneven complexion that reflects the slowing down of regeneration processes in the skin: a decrease in the number of cell divisions of the basal layer and a disruption of the squamous cells of the stratum corneum of the epidermis. Active components for stimulating the regeneration of skin cells are hyaluronic acid, glycans, aloe extract. The enhancement of the effects of these components in combination with physical and chemical exfoliating agents is recommended.

The third visible sign of skin aging is the clear folds and deep wrinkles on the skin that result from the decreased synthesis of collagen and glycosaminoglycans in the dermis. Structural protein collagen provides network support and skin protection, and glycosaminoglycans affect the level of moistening of the dermis. With glycosaminoglycans deficiency, the collagen becomes brittle; its fibers break down faster. In addition to natural chronobiological reasons, there are a number of factors that affect the reduction of collagen levels: UV rays damage fibroblasts that produce

collagen; mechanical influence on the skin (permanent facial expression) leads to the destruction of collagen; free radicals damage collagen chains and stimulate the activity of collagenase, which leads to the formation of unstable collagen chains that weaken the skin. To prevent damage to fibroblasts and collagen fibers, the necessary component of anti-aging creams should be inorganic UV filters (zinc oxide / titanium dioxide). Coenzyme Q10, vitamins C and E, extract of green tea and some other plants can work as antioxidants in the cream.

Loss of skin density is another sign of aging as a result of increased synthesis of the hormone dihydrotestosterone in women with age. With an increase in the level of dihydrotestosterone, the production of elastin in fibroblasts, a structural protein of the dermis, is impaired, which ensures the elasticity of the skin. Among the exogenous factors that significantly affect the reduction of elastin, are UV rays that are capable of damaging the fibroblasts that produce elastin, as well as permanent mechanical deformation of the skin due to which the elastin fibers stretch. Recovery of skin elasticity is facilitated by exogenous elastin cosmetic products in combination with UV filters.

Extended pores and age spots are also a sign of skin aging. A pore seems extended because of the accumulation of dead cells around the pore and the reduction in the amount of collagen. Age spots appear under the influence of age-related hormonal imbalance, and the effects of UV radiation due to melanocyte grouping, on the one hand, and a decrease in the total number of melanocytes, on the other. It has been experimentally proven that the constant use of a sunscreen helps maintain the pore size unchanged and prevents the appearance of age spots.

Overview of components of anti-aging creams cannot be complete without indications of doubtful ingredients of anti-aging creams, which, in addition to the positive effect, may have an adverse side effect: glycerol, caffeine, propylene glycol, zinc sulfate, benzyl alcohol, mineral oils, octyl, parabens.

Conclusions:

1. Based on the analysis of modern scientific literature, the main active components of anti-aging creams with a essential effect on visible signs of skin aging are given in the work.
2. The work also shows doubtful ingredients of anti-aging creams, which, in addition to the positive effect, may have an adverse side effect.