

SECTION 21. MEDICAL SCIENCES AND PUBLIC HEALTH

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APPLICATION OF HYALURONIC ACID IN SKIN CARE OF WOMEN IN PERIMENOPAUSAL AND MENOPAUSAL PERIODS

Population aging is an important socio-demographic process that receives special attention. In the XX century, in the developed countries of the world, the number of people aged 55 and over increased from about 4 to 13%, toptothere is a tendency for these indicators to grow [3,6]. It is this demographic situation that determines the increased attention to research in the field of aging, especially in relation to its potential age-related changes [3,6,11]. Skin aging is part of the overall biological aging process and is governed by the same laws. With age, diseases approach, the colors of life fade, physical activity and sexual desire decrease, chronic fatigue increases [3,5,6,8]. The reason for these problems is the extinction of the function of the reproductive system against the background of general aging of the body [7,8,11].

The skin is the first to react to changes in the body, and also takes on the action of exogenous (climatic changes, UV, lifestyle, etc.) and endogenous factors [1,2,5]. An important endogenous factor in skin aging, especially in women, is the state of the endocrine system [4,5,8,9]. The age periods of a woman are characterized by certain changes both in the reproductive system and in the whole body as a whole. This process can begin long before the onset of menopause (about 35-40 years), which depends on how strong the sexual constitution and the healthy body of the woman as a whole [5,9].

Every woman has a different course of perimenopausal and menopausal periods. In some individuals, changes in the body as a whole and in the skin occur gradually, but most women during these periods are faced with rapid and significant changes, the key point of which is a sharp

decrease in the production of estrogen by the ovaries, which has a significant effect on the functioning of the skin [4,8]. Estrogen stimulates the division of basal cells of the epidermis, enhances the synthesis of collagen, elastic fibers and hyaluronic acid by fibroblasts, thereby estrogen contributes to the firmness and elasticity of the skin. During the premenopausal period, the amount of estrogen and blood vessels is significantly reduced, so collagen fibers stick together, the skin loses its elasticity and firmness. In connection with estrogen deficiency, there is a decrease in the production of fat by the sebaceous glands, which further aggravates the skin condition [11,12]. As a result, the production of glucosaminoglycans in the skin is disrupted, which leads to a decrease in the synthesis of collagen - one of the key components of the skin. During these periods, the skin begins to age more rapidly. In the first 5 years of menopause, a woman can lose up to 30% of collagen, in postmenopausal women the rate of its loss is reduced to 1-2% per year [4,5,12]. Collagen fibers form the skeleton of the skin, hyaluronic acid molecules are located between them, which contributes to water retention in the skin. Also in the perimenopausal and menopausal periods, a natural decrease in the content of hyaluronic acid is added along with a decrease in the amount of elastin, which leads to disorganization of the skin tissue [8,12]. The structure of the skin is disturbed, the skin becomes more flabby, thinned, easily damaged and slowly regenerates [15, 18]. Dry skin, dehydrated, pronounced wrinkles are characteristic signs of climacteric syndrome.

The largest number of estrogen receptors has the skin of the face, neck, chest (neckline), so changes in these areas during menopause are the most predictable.

Thus, it is possible to highlight the main urgent problems in women of the perimenopausal and menopausal periods: dry skin, as a result of its peeling, flabbiness, fineness, inelasticity and the presence of wrinkles [1,7].

Cosmetic changes in the skin have a serious impact on the psyche of a woman, they begin to look older and less attractive [4,12].

The appearance of the skin is associated with ideas about beauty, therefore, in women in the perimenopausal and menopausal periods, self-esteem may be impaired, and the loss of self-confidence leads to a violation of the quality of life [5,11].

The age category of patients leading an active lifestyle in society is 40-65 years old. These women have a fairly high professional experience, but they also have a "baggage" of somatic diseases, which limits the use of many methods of rejuvenation [1,7].

At the same time, it is relevant to the development of new methods for the correction of skin wrinkles with a revolving clinically effective and maximum safety for patients. Methods for the correction of skin changes in women include conservative and surgical. Finding and demanding for the current day - all conservative methods, which allow without changing the social life of the development and introduction of the "youth" of the skin. Conservative methods are presented by physiotherapeutic infusion, intravenous and topical applied drugs. The name of the consumption of hyaluronic acid and the growth of the little ones should be taken care of, but the skin is denuded and uncovered [10]. Particularly quick and trivial effect in case of stagnation with hyaluronic acid. In addition, in women instead of the active component is vitamin, which is in creams, lotions [14].

The aim of our study was to find out the effectiveness of the use of hyaluronic acid HYALU B5 in skin care for women in the perimenopausal and menopausal periods.

Material and methods of research. Our study involved 54 women aged 40 to 65 years, who applied to the Department of Skin and Venereal Diseases and to the cosmetology office of the KP "POKSHVD POR" with complaints of a decrease in skin turgor and elasticity, the appearance of wrinkles (I-II class according to the classification of Fitzpatrick) in the areas of the corners of the eyes and forehead, neck and décolleté, a feeling of dryness and tightness of the skin. with a wrinkled face type, with numerous superficial fine wrinkles, often with hyperpigmentation,

thin skin that easily folds, prone to wilting, which is mainly associated with physiological aging and photodamage of the skin, with phototypes I-IV (according to Fitzpatrick).

8 (14.8%) patients participating in the study had concomitant diseases in remission: pathology of the gastrointestinal tract and liver 12 (22.2%), kidney 5 (9.3%), cardiovascular system 4 (51.85%). Among the surveyed 16 (29.6%) smoked. A comprehensive examination of the patients based on the study of objective and subjective indicators of the condition of the skin, the psychological state was carried out before and after the application of the serum.

Inclusion criteria:

- women from 45 to 65 years old with moderate or severe chrono-aging, the presence of wrinkles and folds in the face, neck and décolleté area,
- absence of indications for any minimally invasive aesthetic procedures, including injection procedures, in the last 12 months;

Exclusion criteria:

- participation in any other research related to facial rejuvenation within the last 12 months prior to inclusion in this study;
- skin diseases in the acute stage;
- hypersensitivity to serum components;
- the use of photosensitizing drugs.

An objective assessment of the dermatological status was carried out by studying the functional parameters of the skin (degree of hydration, oiliness and elasticity) based on the method of bioimpedance analysis (Bioelectric Impedance Analysis BIA). For this, the bioelectric skin analyzer HYDR8 was used - a convenient hand-held skin moisture meter using skin bioelectrical resistance technology. The technology is based on measuring the conductivity and resistance of the skin using a low level of electrical current. Upon contact with the client's skin, the device displays the data of these measurements in the form of a final numerical result. The evaluation of the results obtained was carried out on the basis of the histograms displayed on the display of the device: Moist, Oil, Rough / Soft, Elasticity.

Measurement of the condition of the skin was carried out weekly in the same spot areas at the same time of day.

Visual examination was carried out using a visual analogue scale (VAS) based on the assessment of the following signs of skin aging: nasolabial folds, superficial and deep crow's feet wrinkles, deep wrinkles under the eyes and on the eyelids, forehead wrinkles, glabellar wrinkles, gradation from -5 to 5 points. Subjective assessment of the dermatological status (dry skin, roughness, heterogeneity, moisture, elasticity, freshness of the skin, as well as the effects of "wrinkling", "tired skin" and "good complexion" was carried out by women using a visual analogue scale (VAS) with a gradation from 0 to 10 points.

The quality of life of patients was assessed using psychodiagnostic testing using the Dermatology Life Quality Index (DLQI, Finlay, 1999) questionnaire. According to the literature data, ILYL is a highly informative method for assessing the state of health, which allows using quantitative criteria to assess the parameters of a person's vital activity, his physical, psychological and social health.

As a skin care for women in perimenopausal and menopausal periods, we used locally for cosmetic purposes hyaluronic acid in the form of a serum HYALU B5 La Roche Posay, France

The uniqueness of the moisturizing formula of the HYALU B5 serum is a combination of two types of pure hyaluronic acid - high molecular weight and low molecular weight. Serum HYALU B5 La Roche Posay contains:

- High molecular weight hyaluronic acid - provides moisture to the skin on its surface and creates a barrier against natural moisture loss, corrects lines of dehydration and wrinkles.
- Low molecular weight hyaluronic acid - due to its lower density, it penetrates into the deeper layers of the dermis and stimulates the natural production of collagen;

- Vitamin B5 - accelerates the natural process of skin regeneration;
- Madecassoside is a multifunctional molecule that deeply soothes and restores skin condition, activating skin regeneration;
- Thermal water La Roche-Posay - includes a unique composition of minerals that help soothe the skin and protect it from the negative effects of external factors.

HYALU B5 serum was applied twice a day, in the morning and in the evening, on the previously cleansed moist skin of the face, neck and neckline.

To assess the effectiveness of topical application of HYALU B5 Serum in skin care for women in the perimenopausal and menopausal periods, the skin of the face, neck, décolleté was examined from the beginning of treatment, and then every week for 4 weeks. Evaluation of the effectiveness of the drug was carried out according to the dynamics of improving the condition of the skin and normalization of the general condition of women.

Results and discussion. At the initial examination, all women showed excessive dryness, peeling of the skin, a feeling of discomfort, the presence of a large number of wrinkles.

A tangible effect was noticeable already after 4 hours in 19 (35.1%) women, the skin was more toned, after the second application at the end of the day, wrinkles appeared in 29 (53.7%) women, and in 41 (75.9%) patients the skin is moisturized, elastic. At the end of the 1st week of using the drug in 33 (61.1%) women, the symptoms of skin wilting in the areas of the eyes and forehead disappeared, in 38 (70.4%) people the skin was moisturized, in 44 (81.5%) the skin was more soothed, in 39 (72.2%) women, the skin became soft and tender to the touch, the feeling of dryness and tightness of the skin disappeared. On the 14th day of using the drug in 47 (87%) women, all manifestations of dry skin, discomfort, and penalties practically disappeared. Only 11 (20.4%) people had areas of peeling in places of deep lesions of the epidermis. After 4 weeks of using HYALU B5 serum in 52 (96.3%) women, the skin of the face, neck and décolleté is more elastic, in 48 (88.9%) the skin looked moisturized, in 51 (94.4%) women the skin ... she looked "fresh and radiant", which significantly improved the quality of life with age-related skin problems.

It should be especially noted that in no case was the use of HYALU B5 serum found any side effects.

The index of skin elasticity increases reliably 1.6 times, skin moisture increases 2 times, as well as the results of subjective visual assessments of the condition of the facial skin made by doctors and patients by 1.6 times.

Conclusions. As a result of the conducted reviews of modern literature sources and our own observations, it can be concluded that skin care in women of perimenopausal and menopausal age remains an extremely urgent problem of the present. Topical use of serum HYALU B5 [Hyal B5] is an optimal skin care product for women of perimenopausal and menopausal age due to its balanced composition. The positive dynamics of hydration and elasticity indicators revealed after the use of HYALU B5 serum correlates with a decrease in skin dryness, a decrease in roughness and heterogeneity. This makes it possible to recommend it as an effective preventive and therapeutic skin care with age-related changes in women in the perimenopausal and menopausal periods.

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