Introduction

The problem of eczema is becoming increasingly important. In the structure of the incidence of chronic dermatoses, it accounts for up to 40% of all skin diseases. The incidence of this dermatitis is observed in all age groups and is often verified as an occupational disease. According to epidemiological studies, different types of eczema are the most common of all dermatoses in the practice of dermatovenereology [1, 4].

Today, the focus of interest in scientific medical research is directed not only to the study of the causes of pathological processes, but also to the mechanisms of resistance to their occurrence and development. An important place in
the assessment of resistance to risk factors is occupied
by the study of molecular, cellular mechanisms of
protection, and morphofunctional parameters of the
organism. This is due to the fact that the anthropological
approach in medicine ranges from the establishment of
general laws to determine the adaptive significance of
phenotypic polymorphism in the population [10, 11, 14].

Modern integrative and personalized medicine requires
the creation of standards of physical development of
different groups of the population, which could be guided
by the examination of a particular patient [6]. The creation
of such standards as one of the most important tasks of
modern anthropology should take into account the diversity
of the population and be carried out taking into account
constitutional, sex, age, ethno-territorial factors [15].
Implementation of this direction without the accumulation
of a large array of morphometric data is impossible [17].

In dermatology, in particular, over the last decade,
positive experience has been accumulated in the
application of constitutional parameters, which is promising
for both diagnosis and prognosis of pathology. Thus, the
systematic application of constitutional characteristics in
the creation of an individual approach to diagnosis on the
example of atopic dermatitis, pyoderma, psoriasis, and
others [5, 8, 9, 12] allowed to speak not only about the
urgency of the problem of phenotypic manifestation of
dermatoses, but also to apply in the systemic aspect of the
constitutional approach in solving the problem of their
prediction. It should be acknowledged that many issues
related to the strategic task described above have not yet
been fully resolved. In particular, in Ukraine for eczema
there is practically no data on "somatotypological profiles"
and on features of dimensional indicators depending on
the form and weight of its course.

The aim of the study was to identify the differences in
body girth sizes between healthy and/or eczema patients
depending on the severity of dermatosis.

Materials and methods

Men of the first mature age (22-35 years) with idiopathic
(n=34, including 16 mild and 18 severe severity) and
microbial (n=38, including 28 mild and 10 severe severity)
eczema, who were examined on the basis of the Military
Medical Clinical Center of the Central Region and the
Department of Skin and Venereal Diseases with a course
of postgraduate education of National Pirogov Memorial
Medical University, Vinnytsya, conducted an anthropometric
survey in accordance with the scheme of Bunak V. V. [2].

The diagnosis of eczema was performed according to
the nomenclature ICD-10 (https://zakononline.com.ua/
documents/show/116857_531218).

As a control from the data bank of the research center of
Vinnytsia National Medical University anthropometric data
of 82 practically healthy men of the same age group were
selected.

Statistical data processing was performed in the license
package "Statistica 5.5" using non-parametric methods of
evaluation of the obtained results. The reliability of the
difference between the values between the independent
quantitative values was determined using the Mann-
Whitney U-test.

Results

In healthy men, compared with patients, lower values
were found:

- shoulder girth in a tense state (33.23±2.84) compared
  with men suffering from the idiopathic severe eczema
  (35.31±3.65; p<0.05) (Fig. 1);
- shoulder girth in the unstressed state (30.17±2.94)
  compared with men with idiopathic eczema of the mild
  (32.56±3.96; p=0.055) and severe severity (34.19±3.82;
  p<0.05) and microbial eczema of the mild (33.52±3.71;
  p<0.001) and severe severity (33.95±4.92; p<0.05) (Fig. 2);
- forearm girth in the upper part (27.33±2.01) compared
  with men suffering from the idiopathic severe eczema
  (28.90±2.91; p<0.05) (Fig. 3);
- thigh girth (53.25±4.49) compared with men with
  idiopathic eczema of the mild (56.06±5.25; p=0.062)
  and severe (57.87±4.68; p<0.001) severity and microbial
  eczema of the mild (57.34±6.66; p<0.01) and severe
  severity (57.70±7.56; p<0.053) (Fig. 4);
- thigh girth in healthy men (95.04±6.39) compared with
  sick men with idiopathic eczema of mild course (99.58±6.34;
  p<0.05) and microbial eczema of mild course (99.48±9.49;
  p=0.054) (Fig. 5).

Fig. 1. Shoulder girth in a tense state (OBPL1) in healthy and sick
men with various forms of eczema (cm). In this and the following
figures: 1 - healthy men; 2 - men suffering from the idiopathic mild
eczema; 3 - men suffering from the idiopathic severe eczema; 4 -
men with microbial eczema of mild course; 5 - men with severe
microbial eczema; Mean - average value; Mean±SE - average value
± mean error; Mean±SD - mean ± standard deviation.
upper crus girth (36.43±2.91) compared with men with idiopathic eczema of mild (38.46±3.75; p=0.075) and severe eczema (39.39±3.45; p<0.01) and microbial eczema of mild course (39.21±3.51; p<0.001) (Fig. 6);
crus girth in the lower part (23.41±1.87) compared with men with mild microbial eczema (24.91±2.57; p<0.01) (Fig. 7);
neck girth (37.67±1.92) compared with men with idiopathic eczema of severe course (40.42±2.91; p<0.001) and microbial eczema of mild course (39.61±3.80; p<0.05)
waist girth (79.48±7.32) compared with men with idiopathic eczema of the mild (86.97±11.54; p<0.05) and severe (94.14±12.79; p<0.001) severity and microbial eczema of the mild (92.30±15.67; p<0.001) and severe (95.45±19.23; p<0.01) severity (Fig. 9);

chest girth on inspiration (100.0±6.0) compared with men suffering from idiopathic eczema of severe course (107.4±11.3; p<0.05) (Fig. 10);

chest girth on exhalation (93.18±6.39) compared with men with severe eczema of severe course (102.9±12.4; p<0.01) (Fig. 11);

chest girth at rest (95.20±6.57) compared with men with severe eczema (104.7±12.0; p<0.01) (Fig. 12).

In healthy men, the girth of the foot (24.96±1.46) is greater compared to sick men with mild microbial eczema (24.18±2.08; p=0.076) (Fig. 13).

The neck girth in sick men with idiopathic eczema of mild course (38.25±2.37) is smaller compared with sick men with idiopathic eczema of severe course (40.42±2.91; p<0.05) (see Fig. 8).

Significant or tendencies of differences in the girth of the forearm in the lower part, the girth of the hand both between healthy and sick, and between men with various forms of eczema have not been established (Figs. 14, 15).

Discussion

Recently, more and more attempts are being made to take a constitutional approach to the search for morphological characteristics to differentiate patients with various diseases from the healthy population [3, 18, 19].

In a number of studies, it was determined that in almost all studied sizes are more important in patients with acne, pyoderma, atopic dermatitis compared with healthy individuals of the same sex [5, 8, 9, 12, 16]. In addition, it is known that in patients with a picnic physique, the clinical symptoms of dermatoses are more intense than in persons with asthenic and normosthenic somatotypes [7]. Great mass in the structure of the body in some diseases is manifested not only in increasing weight and weight-growth indicators, but also in the relative shortening of the lower extremities and increasing the girth of the body [13].

In healthy men compared with patients with various forms of eczema found significantly lower or tendencies to lower values: shoulder girth in a tense state by 4.9 % compared with patients with idiopathic eczema of severe course; shoulder girth in a relaxed state by 7.3 % and 11.8 % compared with patients with idiopathic eczema of mild and severe course, by 10.0 % and 11.3 % compared with patients with microbial eczema of mild and severe course; forearm girth in the upper part by 5.4 % compared with patients with idiopathic eczema of severe course; thigh girth by 5.1 % and 8.0 % compared with patients with idiopathic eczema of mild and severe course, by 7.1 % and
11.3 % compared with patients with microbial eczema of mild and severe course; thigh girth by 4.16 % and 4.5 % compared with patients with idiopathic severe eczema and microbial eczema of mild course; upper crus girth by 5.3 %, 7.5 % and 7.1 % compared with patients with idiopathic eczema of mild and severe course and microbial eczema of mild course; lower crus girth by 6.0 % compared with patients with mild microbial eczema; neck girth by 7.5 % and 6.8 % compared with patients with idiopathic severe eczema and mild microbial eczema; waist girth by 8.6 % and 15.6 % compared with patients with idiopathic eczema of mild and severe course and by 13.9 % and 16.7 % compared with patients with microbial eczema of mild and severe course; chest girth on inhalation, exhalation, at rest by 6.9 %, 9.5 % and 9.1 % compared with patients with idiopathic eczema of severe course.

Only the foot girth in healthy men was 3.1 % higher than in patients with mild microbial eczema. In men with idiopathic eczema, the neck girth was 5.4 % lower than in patients with severe eczema.

Thus, as a result of the work, for the first time, differences in the girth size between healthy and patients with idiopathic and microbial eczema were revealed for Ukrainian men of the first mature age. Comprehensive dimensions can be used as a criterion of severity and to predict the phenotypic manifestation of eczema (risk group).

To determine subpathological ("diathetic") constitutional types in eczema, it is necessary to further study other anthropometric and somatotypological parameters of the body.

**Conclusions**

1. In men with different forms and severity of dermatosis, most of the girth of the body is larger (except for the girth of the foot) compared to healthy individuals.

2. There were no significant or trends in differences in body girth sizes between patients with idiopathic and microbial eczema, and almost no differences between patients with mild and severe disease (only the neck girth is significantly smaller in patients with idiopathic eczema of mild severity compared to severe).

**References**


Features of the girth sizes of the body in men with various forms of eczema

[18] Sakibaev, K. Sh. (2019). Обхватные размеры тела у муж-