STUDY OF ETHNIC AND REGIONAL FEATURES OF DERMATOGLYPHIC PARAMETERS OF HANDS AND FEET (LITERATURE REVIEW)

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Abstract. The article outlines the prospects for studying the ethnic and regional features of dermatoglyphic parameters of hands and feet, given the intensification of migration processes both within Ukraine and worldwide, which each year causes a catastrophic increase in the number of people living outside the country or region of origin. Refugees, labor and political migrants, migrants due to racial discrimination and other reasons today make up 3% of the world’s population. The growing flow of world migration and assimilation creates all the conditions for the disappearance of pure ethnic groups and peoples. Therefore, modern scientists are interested in the availability of anthropometric, anthroposcopic, dermatoglyphic data of different populations to create regional gene pools. In the context of the above issues, the issue related to the study of anthroposcopic, anthropometric, dermatoglyphic parameters of the population of Ukraine, taking into account regional and ethno-territorial affiliation, remains relevant. The article also identifies the advantages of using the dermatoglyphic method, which include ease of use, financial burden and the ability to obtain results in a short time. A thorough analysis of the literature on this issue, based on which the main directions of application of dermatoglyphics. It has been determined that dermatoglyphic has been the subject of research by specialists in various fields of knowledge form over the century. Based on the results of studying the features of dermatoglyphic, anthropometric and anthroposcopic parameters, scientists have proposed a zoning scheme of the territory of Ukraine. The results obtained by studying the comb pattern of human hands and feet still remain an informative source in medicine, criminology, anthropology and population genetics. Genetic conditionality of dermatoglyphic parameters allows to use dermatoglyphics to solve a number of issues that arise during ethno anthropological and population-genetic studies. Dermatoglyphics is widely used in medicine: clinical (in predicting the likelihood of various pathological conditions) sports (in determining the physical capabilities of the person). In the practice of forensic medicine, dermatoglyphics has until recently been used in the examination of disputed paternity, but in recent decades it has also been actively used in determining family affiliation, analysis of family ties with subsequent use of data to identify unknown persons parameters of relatives. A number of Ukrainian scientists who studied the ethnic features of dermatoglyphic, anthropometric and anthroposcopic parameters, their contribution to Ukrainian ethnodermatoglyphics and outlined prospects for study were identified in the literature analysis. The main key issues considered by scientists from other countries of the world are also identified, the method of studying the ethnic and territorial features of dermatoglyphic, anthropometric and anthroposcopic parameters used by them is evaluated and the results obtained by them are analyzed. In the context of the above, it should be noted that the study of ethno-territorial, regional features of dermatoglyphic parameters of the hands and feet is relevant among the world scientific community. However, currently there are too few works by domestic authors devoted to the study of regional and ethno-territorial features of dermatoglyphic parameters, although given the intensification of migration processes, the prospects for its study are outlined.

Keywords: dermatoglyphics, ethnodermatoglyphics, dermatoglyphic parameters.

Introduction. Intensification of migration processes both within Ukraine and within the world, which is the reason for the catastrophic increase in the number of people living outside the country or region of origin. Refugees, labor and political migrants, migrants due to racial discrimination and other reasons today make up 3% of the world’s population [1]. The growing flow of world migration and assimilation creates all the conditions for the disappearance of pure ethnic groups and peoples. Therefore, modern scientists are interested in the availability of anthropometric, anthroposcopic, dermatoglyphic data of different populations to create regional gene pools. In the context of the above issues, the issue related to the study of anthroposcopic, anthropometric, dermatoglyphic parameters of the population of Ukraine, taking into account regional and ethno-territorial affiliation, remains relevant.

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Dermatoglyphics has been the subject of research by specialists in various fields of knowledge for over a century. The results obtained by studying the comb pattern of human hands and feet still remain an informative source in medicine, criminology, anthropology and population genetics. Genetic conditionality of dermatoglyphic parameters allows to use dermatoglyphics to solve a number of issues that arise during ethno anthropological and population-genetic studies [2, 3, 4, 5]. Dermatoglyphics is widely used in medicine: clinical (in predicting the likelihood of various pathological conditions) [6, 7, 8] sports (in determining the physical capabilities of the person) [9, 10, 11]. In the practice of forensic medicine, dermatoglyphics has until recently been used in the examination of disputed paternity [12], but in recent decades it has also been actively used in determining family affiliation (examination of kinship), analysis of family ties with subsequent use of data to identify unknown persons parameters of relatives [13, 14].

Speaking of Ukrainian ethnodermatoglyphics, it is impossible not to mention the fundamental research of Segeda S.P. [15], who studied the distribution of dermatoglyphic parameters among the population of Ukraine, taking into account their regional and ethno-territorial affiliation, based on the results, analyzed the variations of the leading features of this system and identified local dermatoglyphic variants (complexes) in Ukraine (northern, central and southern).

The northern complex, which covers the majority of the populations of Polissya and Volyn, is characterized by a low and moderate delta index (11.83 - 12.56), increased frequencies of additional interdigital triradius (usually above 20%) and triradius t (up to 69%). This peculiar combination of features has analogues among the Belarussians of Central Belarus and the Russians of the North-West and North of the European part of the Russian Federation, which indicates the presence of a northern European morphological component in the outlined regions of Ukraine.

The central complex, distributed in some areas of the Middle Dnieper region, in the South of Volyn and in Galicia, is characterized by the most "western" combination of dermatoglyphic features, namely: medium DI10 (12.72 - 13.12), medium-high Cummins index (8.40 - 8.63), low and moderate percentages of triradius t (53.0 - 58.6%), high frequency of patterns on the hypotensuse (34.6 - 38.7%) and medium - interdigital additional triradius (16.1 - 19.1 %). The close combination of features is characteristic of the Moldavians of Northern Bukovina and the Russians of the South of the European part of the Russian Federation.

The southern complex, distributed on the Right Bank of the Middle Dnieper region, in the steppe zone and in the Carpathians, is characterized by high in Ukraine DI10 (12.90 - 13.50), average Cummins index (8.27 - 8.58), medium-high percentage of triradius t (62.2 - 65.3%), slightly underestimated number of samples on the hypotensuse (26.3 - 30.4%) and interdigital additional triradius (10.1 - 23.6%). Parallels between the Dnieper and Carpathian populations, identified on the basis of dermatoglyphic data, are associated with the influence of the southern European component. This explains the analogies with the Bulgarians, Gagauz, Moldavians and some groups of Russians in the south of the European part of Russia.

Also S.P. Segeda gave a general dermatoglyphic description of Ukrainians against the background of some other ethnic groups in Eurasia. In particular, it is shown that for most of the leading dermatoglyphic characteristics (except for the Cummins index) Ukrainians in comparison with the total sample of Eastern Europe and Scandinavia deviate in the direction of the Caucasus, where anthropological variants of southern origin are common. Probably, these deviations are due to the influence of the southern European component found in the Middle Dnieper region, in the Carpathians, in the south of Ukraine.

Among the scientists studying the Ukrainian ethnodermatoglyphics it is necessary to note V.I. Gunas. The author studied the regional features of finger and palm dermatoglyphics and their relationship with the personality characteristics of almost healthy men in Ukraine. As a result of the author got dermatoglyphic population picture of practically healthy men of Ukraine is covered, administrative-territorial regions with both high phenotypological heterogeneity and high homogeneity of finger dermatoglyphs features are revealed, high phenotypological inhomogeneity of qualitative and quantitative indicators of palmar dermatoglyphs is determined [1].

Nowadays, the study of dermatoglyphic and anthropological features of different ethnic groups and peoples of the world is becoming increasingly popular. As for the dermatoglyphics of other peoples of the world, it should be noted that it has been studied or is studied in various aspects: as a diagnostic and prognostic marker system in medicine, identification marker system in criminology, anthropological marker system of historical, evolutionary processes and genetic structure among populations [16-20].

One of the scientists who used the dermatoglyphic method in anthropological research is G.I. Khit [21], who studied the dermatoglyphic parameters of the peoples of the Caucasus and Transcaucasia. Namely, in her work 1974-75 ("Dermatoglyphics of the peoples of Central Asia in connection with the problems of their origin") [28] highlights the rasogenetic, ethnopopulation relations of the population of the Caucasus, Central Asia and the South European part of the Union of Soviet Socialist Republics.

A great contribution in this direction was made by A.G. Sidorenko [22]. He conducted a comprehensive study of dermatoglyphics of the palms, which allowed him to identify racial and gender differences depending on quantitative and qualitative indicators, taking into account the topography of triradius and volar pattern, as well as the presence or absence of main and additional triradius; found a significant correlation in the manifestation of rare dermatoglyphic features between the palms of children and true parents.

A group of researchers from India [23] studied the patterns of distribution of dermatoglyphic parameters of the distal phalanges of the fingers among the Marathi...
The study did not reveal any gender differences in dermatoglyphic parameters, however, it revealed significant associations between skin pattern and ethnicity.

Issues of ethnomedermatoglyphics, also actively studied N.A. Suvorova [30] when comparing ethnographic and anthropological data showed that according to anthropological research the contribution of local (genetic) substrate in the formation of physical features of Bashkirs (appearance, morphology of the dental system, dermatoglyphic parameters) looks more significant than historical and ethnographic data. Moreover, if according to craniological research the carriers of this component are mainly women, then according to dermatoglyphics it is no less clearly traced in men.

Peculiarities of dermatoglyphic indicators for residents of different regions of Bulgaria have been studied. The survey of 102 men and 95 women living in the Lyubimets region and 91 men and 105 women living in the Svilenhrad region revealed almost no significant differences, which means that the population of these regions is quite homogeneous [31].

In 2016, M. Gautam and U. P. Singh conducted a comparative study of dermatoglyphic parameters among residents of the Khatiks and Kumbhari ethnic groups in Luchnov province. 100 representatives were selected from each of the ethnic groups (50 men and women), who underwent a dermatoglyphic study. For members of the Khatixi group, the largest number of curls, the smallest number of loops and the smallest number of arcs were found. Higher values of most indicators were found for men of both ethnic groups. The affinity of the Khatiks to the ethnic groups of the Boks, Oraons and Bhils in terms of dermatoglyphic indicators has been revealed [32].

**Conclusion.** In the context of the above, it should be noted that the study of ethnological, regional features of dermatoglyphic parameters of the hands and feet is relevant among the world scientific community. However, currently there are too few works by domestic authors devoted to the study of regional and ethno-territorial features of dermatoglyphic parameters, although given the intensification of migration processes, the prospects for its study are outlined.

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ВИЧЧЕННЯ ЕТИЧНИХ І РЕГІОНАЛЬНИХ ОСОБЛИВОСТЕЙ ДЕРМАТОГЛІФІЧНИХ ПАРАМЕТРІВ РУК І НІГ (ОГЛЯД ЛІТЕРАТУРИ)
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Резюме. У статті окреслені перспективи вивчення етичних та регіональних особливостей дерматогліфічних параметрів рук і ніг, з огляду на інтенсифікацію міграційних процесів як у межах України, так і у світових межах, що впливає на ускладнення процесів відчуття кожного населення. Використання дерматогліфічних параметрів є актуальним з огляду на інтенсифікацію міграційних процесів, хоча з огляду на інтенсифікацію міграційних процесів оцінюються перспективи до її вивчення.

Ключові слова: дерматогліфіка, етнодерматогліфіка, дерматогліфічні параметри.

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IZUCHENIE ETNICHESKIH I REGIONAL'NYH OSOBNOSTEI DERMA TOGLIFICHESKIH PARAMETROV RUK I NOG (OBZOR LITERATUREY)
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Резюме. В статье обозначены перспективы изучения этнических и региональных особенностей дерматоглифических параметров рук и ног, с оглядом на интенсификацию миграционных процессов как в пределах Украины, так и в мировых пределах, которые являются актуальными и актуальны для исследования феномена миграции. Установлено, что дерматоглифические параметры рук и ног становятся значительным фактором в национальной идентификации населения.

Ключевые слова: дерматоглифика, этнодерматоглифика, дерматоглифические параметры.
получения результатов в короткие сроки. Проведен подробный анализ литературных данных, изучены основные направления применения дерматоглифики. В разрезе выше освещенной проблематики актуальным остается вопрос, связан с изучением антропоскопических, антропометрических, дерматоглифических параметров населения Украины с учетом региональной и этнотерриториального принадлежности. Изучение этнических особенностей дерматоглифических параметров рук и ног актуальное среди мирового научного сообщества. Однако, пока существует слишком малое количество работ отечественных авторов, посвященных изучению этнотерриториальных особенностей дерматоглифических параметров, хотя учитывая интенсификацию миграционных процессов, определяются перспективы к ее изучению.

**Ключевые слова:** дерматоглифика, этнодерматоглифика, дерматоглифические параметры.

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