

SUMY STATE UNIVERSITY
ACADEMIC AND RESEARCH MEDICAL INSTITUTE

ABSTRACT BOOK

**BIOMEDICAL
PERSPECTIVE
IV**

*International Medical Conference
of Students, Postgraduates, and Young Scientists*

April 24-25, 2024

2024

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BIOMEDICAL
PERSPECTIVES

«BIOMEDICAL PERSPECTIVES IV»

ABSTRACT BOOK

International Medical Conference
of Students, Postgraduates, and Young Scientists

(April 24-25, 2024)

Sumy
Sumy State University
2024

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GENERAL INFORMATION

Conference Dates: April 24-25, 2024.

Location: Sumy, Ukraine (**online**).

Place: Sumy State University

Language: Ukrainian and English.

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This conference coordinated by:

Prof. Maksym Pogorielov;

PhD Vladyslav Sikora (MSCA4Ukraine project (1233369));

Andrii Liutyi.



All submitted scientific papers were screened for plagiarism and present in the abstract book.

The Conference organizing committee is not responsible for the textual content of the publications and the quality of its translation.

STUDY OF DERMATOGLYPHICS IN ATHLETICS

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Introduction. The sports genetics allows carrying out the prediction of sports endowments of a person. However, studying of finger patterns to high achievements in athletics is studied not enough. Dermatological analysis of athletes makes it possible to compare the complexity of their fingers among themselves, as well as with ordinary people. In the end, scientific sources argued about a direct proportional relationship between the complexity of fingerprints and mental and locomotive abilities.

Aim. To determine the influence of dermatoglyphics in the selection of gifted athletes in the Ukrainian population.

Materials and methods. The prints were collected among 9 athletes with high sports results (international class) and 10 athletes with insignificant sports results. To take fingerprints we used a method with the use paint and a roller for drawing paint. The obtained data were analyzed statistically.

Results. According to the results of the study, we determined that the main group of athletes has 15 % less whorls than the main group of athletes. It has been confirmed that the loops is the most common reflection. In the norm, for the Ukrainian population, the number of whorls should be 30-40%. Determined that athletes with high sports results (international class) in the Ukrainian population have a tendency to a reduced amount whorls (of 5% less). The delta index in the main group also has lower values ($DI=9,5$) than in the control group ($DI = 13,3$). The athletes with high sports results (international class) in the Ukrainian population a delta index of 19% less than athletes with insignificant sports results. This also indicates a tendency for a drop in the delta index for athletes with high sports results (international class). We also see a trend of decreasing angle ATD for palm by 10% in athletes with high sports results (international class) in the Ukrainian population.

Conclusion. The athletes with high sports results (international class) in the Ukrainian population were characterized by the peculiarities of dermatoglyphic constitution: less values of delta index and the total ridge count, less proportion of complex patterns.

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