MORPHOLOGIC PATTERNS OF LIP PRINTS IN A CROATIAN POPULATION: A PRELIMINARY ANALYSIS

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The authors declare that they have no conflict of interest.

Introduction: Cheiloscopy, a forensic investigation technique, deals with the study of elevations and depressions which form a characteristic pattern on the external surface of the lips. The positive identification of living or deceased persons using the unique traits and characteristics of the teeth and jaws forms a cornerstone of forensic science. Today, however, investigators may also rely on lip prints to identify possible suspects or to support evidence gained in specific investigations. Lip grooves are considered unique and analogous to the fingerprint. The aim of this research is to determine the pattern of lip prints and evaluate its uniqueness in a sample of Croatian population.

Materials and methods: The study was conducted on randomly selected 37 male and 50 female subjects. Firstly, next to the centimeter blocks, lips were photographed with a digital camera Olympus μ-mini. After that, the lips were lubricated with a matte red lipstick, Catrice 080 My Red Card. Followed by taking lip prints on paper in a way that the subject slightly pursed its lips and pressed the paper with a light touch, first central, and then laterally. To preserve the sample it is covered with tape and digitally photographed. In this study, we followed the classification of patterns of the lines on the lips proposed by Tsuchihashi, which is the most widely used classification in literature.

Results: Research has shown that most women in the Croatian belong to the type 2 (40%), it follows type 1 (34%), Type 3 (12%), 4 (8%) and 5 (6%) are of less importance. Most of the male belong to type 3 (38%) and type 2 (22%) and a small number of types of 4 (16%) 5 (13%) and 1 (11%).

Conclusion: This results give an insight in the patterns of lip prints in a Croatian population supporting the hypothesis that lip prints are capable to distinguish individuals and may be useful in sex determination.

KEYWORDS: Forensic Odontology, Identification, Lip print