Institute of Experimental Morphology, Pathology and Anthropology with Museum
Bulgarian Anatomical Society

Acta morphologica et anthropologica, 25 (1-2)
Sofia ● 2018

Study of Fingerprint Patterns in Left-Handed and Right-Handed Bulgarian Individuals

Nadezhda Petrova[2], Emilia Andreenko[2], Cristobal Iglesias[3], Stefan Sivkov[1]*

[1] *Medical University, Plovdiv, Bulgaria*
[2] *University of Plovdiv Paisii Hilendarski, Plovdiv, Bulgaria*
[3] *Medical Faculty of Oviedo's University, Asturias, Spain*

***** Corresponding author e-mail: nad87@abv.bg

The aim of the present study is to assess the variability of fingerprint patterns in the individuals of Bulgarian ancestry and establish their relationship with hand dominance. The study includes 390 subjects (277 females and 113 males) aged 19-30 years. Of these, 285 are right-handed, 94 left-handed, and 11 are ambidextrous. The subjects are clinically healthy, of Bulgarian ethnicity.
Rolled fingerprints were obtained by the ink method. Papillary patterns were classified into four main types. The data were analyzed with statistical software SPSS 19.0. A pattern model (U>W>A>Y) of the distribution of papillary fingerprints was found for both hands in left-handers and right-handers. Significant differences were found in the fingerprints of the first ($p = 0.009$), second ($p = 0.008$) and fifth fingers ($p = 0.053$) on the left hand between left-handed and right-handed females. In males the differences did not reach statistical significance ($p>0.05$).

Key words: fingerprint patterns, handedness, Bulgarian individuals