

Are the physical anthropological types associated with a presence of epilepsy?

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Introduction: A physical anthropological diversity of any human population is its stable and very important characteristic, which influences on various aspects of existence of this population, including epidemiological ones. For some neurological pathology an association was confirmed between certain anthropological phenotypic variants (PhVs) and a presence of the disease, peculiarities of its symptoms and course. Methods: To define specific PhVs, an integrated anthropological examination of 51 persons with epilepsy (G40), who formed the main group (MG), and 50 healthy persons, who represented a general population of Kharkiv Region (Ukraine) as a control group (CG), was performed. Results: It was demonstrated that presence of epilepsy was associated positively with Uralic (17.65% in MG vs. 0.00% in CG; $p < 0.05$) and Armenoid (11.76% vs. 0.00%, respectively; $p < 0.05$) PhVs. A tendency to be associated positively was indicated also for Atlanto-Baltic PhV (9.80% vs. 6.00%, respectively). All these PhVs were few represented in the structure of the general population. Mediterranean (17.65% in MG vs. 20.00% in CG), Dinaric (11.76% vs. 12.00%, respectively) and East-Baltic (7.84% vs. 8.00%, respectively) PhVs were neutrally associated with presence of epilepsy. A negative association with presence of epilepsy was found out for Alpine (13.73% in MG vs. 32.00% in CG; $p < 0.05$) and Paleo-European (9.80% vs. 22.00%, respectively; $p < 0.05$) PhVs. Conclusion: Thus, it was shown definitely existence of a specific phenotypic structure of the group of patients with epilepsy in comparison with the general population and association between presence of epilepsy and certain PhVs for Kharkiv Region.