Article: EPA-0730
Topic: EPW19 - Child and Adolescent Psychiatry 2

SOME FEATURES OF SPONTANEOUS MUTAGENESIS IN CHILDREN WITH DEPRESSIVE DISORDERS

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Depressive disorders (DD) are among the most common worldwide mental problems in children. One of the major causes are genetic factors.

The main objective was to estimate the level of spontaneous mutagenesis in children with DD.

Patients and methods. Cytogenetic analysis has been carried out in 24 children of both genders with mental disorders (MD) in their family history, aged 9 to 17 years, examined in SI 'ICAHC NAMS'. Control group I consisted of 23 children with DD and with no family history of MD; control group II consisted of 52 healthy peers. Statistical treatment: Excel, SPSS Statistics 17,0.

Results. The level of chromosomal abnormalities in the patients with DD was 13,2%, being 7-fold as frequent as in healthy children (1,9%); the most prevailing were single fragments (7,3 and 0,9%) and paired fragments (3,7 and 0,8%); less frequent were polyploidy (0,7% and 0,1%) and premature centromere division (0,7% and 0,03%). The level of spontaneous mutagenesis in the lymphocytes of peripheral blood in the patients with and without family history of MD was more frequent than in healthy children (13,2; 12,9 versus 1,9%). Regardless of their family history of MD, the patients with DD had more significantly frequent occurrence of chromatid, chromosomal and genomic aberrations as compared to healthy children; nevertheless, the significant difference between the patients with DD and control group I was only found for the occurrence of premature centromere division.

https://doi.org/10.1016/S0924-9338(14)78082-4 Published online by Cambridge University Press