

The Atlas of Headache Disorders presents data acquired by World Health Organization in collaboration with Lifting the Burden: the Global Campaign against Headache. Most of the information was collected from 101 countries. The Worldwide prevalence of tension-type headache an average of 42% in adults, the episodic tension-type headache reported by over 70% of some population, chronic tension-type headache affects 1-3% adults, often beginning during the teenage year and peak levels in the 30 year. In Ukraine the prevalence of tension-type headache in adolescent is poor documented. Aim of this study – to determine the prevalence of tension-type headache and identify the risk factors and clinical characteristics in the population of Kharkiv adolescents.

Patients and methods. A random sample of 2342 adolescents in age 13-17 years of Kharkiv schools was screened by using questionnaire, diagnostic criteria of International Headache Society (ICHD-II). The questionnaires consist of questions related to demographic, social, housing and headache characteristics of the subjects. The headache intensity measured by visual analogue scale, the influence headache on daily activity – by disability score PedMIDAS.

Comparison between means was calculated by Fisher's criteria.

Results. Applying the ICHD-II criteria, neurological and physical examination of 2342 subjects the 72,2% had a primary headache, migraine had 10,6%, tension-type headache had 61,1%, other primary headache – 0,5%. The girls had a significantly higher frequency of headaches ($p<0,01$). Tension-type headache was the most common type of headache in Kharkiv adolescents and registered in 84,6% persons with primary headache, episodic tension-type headache in 79,1%, infrequent episodic tension-type headache in 59,7%, frequent episodic tension-type headache in 33,8%, chronic tension-type headache in 5,5%. Headache intensity by visual analogue scale - $4,9\pm 1,3$ in girls and $4,6\pm 1,2$ in boys.

In the analysis of social factors, it was found that adolescents with tension-type headache was significantly less likely to attend sports sections - 27.3% with 38.2% in the control group ($p<0.05$). The duration of work at the computer in adolescents with tension-type headache was $1,4\pm 0,2$ hours and $1,0\pm 0,4$ hours in the control group ($p<0.05$). The main group of adolescents with tension-type headache had significantly more frequent poor adaptation to the preschool and school institutions ($p<0.01$) than in the control group. Adolescents with tension-type headache were significantly more exposed to unfavorable psychological factors in the family - in 79.3% of cases with 49.6% in the control group ($p<0.05$). Adolescents with frequent episodic and chronic tension-type headaches had significantly more frequent alcoholic excesses ($p<0.01$) than in the control group. The dominant frequency risk factor for adolescents with tension-type headache - smoking (41%) ($p<0.01$).

Provoking factors in adolescents with tension-type headache were changing weather patterns in 185 people (57.8%), emotional and stressful situations (stress and relaxation after stress) in 121 adolescents (37.2%), conflicts with teachers (31.9%) and peers (28.8%), rarely with their parents (21.9%); noise, lack of sleep, vestibular load, intellectual overstrain were observed in 19.9% of children with infrequent episodic tension-type headache, 22% with frequent episodic tension-type headache and 48.2% with chronic tension-type headache; bright light (6.9%), strong odors (9.7%), alcohol (3.4%), excess sleep (4.7%), hunger (7.5%), menstruation (0.9%), a long stay in an uncomfortable position (4.1%).

Tension-type headache facilitators were sleep (60.9%), appointment analgesics (55.3%), massage of the neck (11.3%), eating (5.6%), use of a tension bandage (2.5 %), heat and cold in the head (2.2% and 2.5%, respectively).

Adolescents with infrequent episodic tension-type headache often noted a significant reduction in daily activity with a total average score of $4,1 \pm 1,2$ (on a scale PedMIDAS), adolescents with frequent episodic tension-type headache significantly more often, compared to infrequent episodic tension-type headache, had light to moderate decrease in daily activity (total average score - $19,5 \pm 2,7$), adolescents with chronic tension-type headache had significantly higher light to moderate decrease in daily activities, compared with patients with infrequent and frequent forms of episodic tension-type headache, and rarely showed a slight degree of decrease in daily activity (total average score - $32 \pm 4,9$).

Conclusions. The frequency of tension-type headache in adolescents from schools in the city of Kharkiv was 61.1%. The most common form was infrequent episodic tension-type headache. Chronic tension-type headache was observed in 6.5%. The most common risk factors were the unfavorable situation in the family (parents quarrel, divorce), smoking, low physical activity. Tension-type headache affected the daily activities of adolescents, which increases with the increase in frequency and duration of tension-type headache.