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### **Rehabilitation of sick students with resonance wave therapeutic treatment with Aquatone at the study department of higher education.**

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A current challenge is to restore the health of students who are often sick and absent, often suffer from acute respiratory illnesses and influenza, where the focus is on preventing new acute outbreaks of the disease, which can develop into chronic problems.

The declaration on the rights of children, describes that in order to prevent diseases every child should be guaranteed the right to preventive health services and rehabilitation.

In recent years a number of medical practices presented in order to prevent acute medical illnesses based on the ingestion of prophylactic antiviral and immunomodulatory drugs. Bogdanova L.V. 2007, notes the low effectiveness of such health programs at the school.

The purpose of this study was to analyze the clinical effects of non-medical rehabilitation with resonance wave therapy using the Aquatone device in diseased pupils among the university students (DOW).

The study included 24 students from the fifth grade, aged 10-11 years, of these, 13 were girls and 11 boys.

During the year, four cases of acute respiratory infection and influenza was recorded in the group of students, which made it possible to identify those who would be observed. In interviews with these students, in the form of questionnaires (Baranov AA, Kuchma VR, LM Sukharev 2006) containing 33 questions relating to identify diseases indicative of vegetative-vascular dysfunctions and various somato-vegetative symptoms, showed a large number of students, an average of 11.6 complaints per pupil.

The girls complained 1.38 times more often than boys. The main complaints was paroxysmal headache that occurred during physical and mental stress in 13 (50%), and dizziness, nausea and sweating was observed in 21 (90%) of the students.

Syncope and orthostatic reactions when changing posture of 6 (25%) of the students as well as complaints of fatigue, depression, and fatigue during the day and reduced effectiveness of 24 (100%).

Sleep disorders, insomnia and fatigue in the morning of 14 (52%), and sleepwalking was observed of 6 students.

Anxiety and increased nervousness was noted in 61% of the surveyed students. In 18 (75%) of the students there were complaints about the periodic cold, cold feet and hands, among 11 (46%) of the students expressed complaints about sweating associated with increased stress and cold sweating in hands. Besides cephalalgia, typical symptoms was also observed in 18 (73%) of students with heart palpitations, tightness of chest and a feeling of lack of air.

Among the students had 5 (23%) an upset stomach: dilation, abdominal pain, diarrhea or constipation. Increased or decreased appetite was observed in 13 (51%) of the students. 30% of the students had a history of broken arms or legs, head injuries, surgery under general anesthesia.

Identified problems of students were considered on the basis of the risk of psychosomatic pathology and repeated infectious diseases.

The background to the rehabilitation was cases of recurrent acute respiratory syndrome and flu at more than 4 times in the last year, as well as complaints from students identified in the survey as objective evidence of functional and vegetative disturbances, as well as changes in the upper airways. The absence of contra-indications and consent of parents in rehabilitation of students was taken into account.

Rehabilitative and recreational therapy was implemented with resonant wave therapy by a group of students in the school's drug store in continuous mode with an Aquatone unit. Non-invasive treatment of solar plexus was performed, over the forehead and the back of the head during 5 minutes. The sessions lasted for 15 minutes. The treatment lasted for 10 days. The positive effects of resonance wave therapy, was observed already after 4-5 sessions of often sick students.

We found high tolerance for these treatments and interest for further processing among students who experienced reduced symptoms: restored nasal breathing of 12 students, improved sleep and good sleep with 14 students, increased wellbeing of 14 students, improved physical activity was observed in 18 students, reduced headache and cardialgia among 17 students, and a reduction of feverishness of 16 students.

An objective examination showed lower skin pallor of 10 students, 5 students with tachycardia, a significant reduction in the spongy hot skin of 3 students, normalization of blood pressure within age indicators between 25-75 percentile.

At the rehabilitative treatment reduced the incidence of disease among students with  $3.63 \pm 0.12$  times ( $p < 0.01$ ), by reducing the index of severe influenza and SARS with  $0.23 +$  to  $0.05$  ( $p < 0.05$ ); which further increased the resistance of the patients against adverse conditions, and thereby significantly improve the health of students.

To justify the preservation of health effects of students, was given the following recommendations in order to strengthen health after treatment, physical therapy, healthy lifestyle and proposals for the implementation of innovative health measures by the school health service.

Thus, the use of non-medical, non-invasive methods such as resonance wave therapy with Aquatone devices, the continuous mode with low power output and non-thermal exposure time of 15 minutes for 10 days, showed a more effective rehabilitation of sick schoolchildren at each educational institution. The study also showed preventative effects associated with repeated periods of SARS and influenza.