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*Asfendiyarov Kazakh National medical university,**Almaty, Kazakhstan***HYGIENIC QUESTIONS MODE TEACHING STUDENTS WITH CHRONIC LUNG DISEASES**

The objective of the present investigation was to study health status of schoolchildren with chronic lung diseases under conditions of a secondary school. Check-up of health conducted twice a year involved somatic examination by specialists, diagnostics of a disease, identification of the level of physical development and the degree of its harmonicity. The obtained data revealed a number of features in the health status of schoolchildren suffering from lung diseases, most of the children have a concomitant pathology, a higher morbidity rate, a slower rate of physical development; normal physical development is characteristic of a smaller proportion of such children. On starting school, these children have a sufficient level of functional preparedness, but not infrequently the demands put forwards by the current school routine far exceed the childrens functional potentialities.

Keywords: *students, health status, morbidity, day mode, the learning process*

Introduction. State school health largely determines their educational activity, efficiency and performance. However, children with chronic diseases, regular school subject to academic mode, the corresponding functionality of a healthy child. Features of the state of their health and performance require a differentiated approach to learning, creating for such children special hygienic conditions (G.N. Serdyukovskaya and co-authors; R. G. Sapozhnikova; E. P. Stromskaya and others.). Nowadays the most significant part among diseases of schoolchildren is chronic nonspecific diseases of lungs (HNDL), these are diseases very shared today (V.I. Tyshechkii).

The laws of the origin and development of bronchopulmonary pathology in children the subject of numerous studies. Along with this, especially the health of children suffering from HNDL and enrolled in regular school, are not well understood. and it was the objective of the present study.

Materials and methods. The study of health status was carried out twice a year, it included somatic examination by a specialist, the definition of resistance of the organism (the frequency and nature of previous and current diseases), level of physical development, his harmony. In addition, the children were assessed maturity level of the school (for admission to the first grade).

In the analysis of morbidity determined by the average duration of the first case of absenteeism due to illness and the index passes (I.D. Dubinskaya). Study of physical development provides certain height, body weight, chest circumference. For an individual assessment of the physical development of children using regression scales table (I.A. Oparin) and calculated the annual increment of total body size. To determine the level of school maturity used Kern-Jirasektest and measure of the degree of development of motor skills (cutting wheel). All 189 primary school children were surveyed (1-3 grade), pulmonary cases registered offices clinics, and 200 healthy their peers.

Results and discussion. The result of research showed us that 189 children (25%) suffer from bronchitis recidives, other 30% - respiratory allergies, 7% - chronic pneumonia, 24% - asthma, and 14% - chronic pneumonia with asthmatic syndrome. The majority of patients (92%) had comorbidities of CNDL and in 34% children surveyed 2 related chronic diseases and many greatest proportion of this disease were chronic ear diseases, throat, nose diseases and first place in the structure of upper respiratory diseases occupied defeat lymphadenoidpharyngeal ring that is significantly higher than in healthy children ($p < 0.01$).

Indicators of general morbidity of children CNDL in more than 2 times higher than in healthy schoolchildren. The most specific weight are acute respiratory infections, in second place - acute ENT diseases. In the structure of morbidity in healthy children have the same direction but the proportion of acute respiratory diseases in children is much less ($p < 0.01$).

Analysis showed that the recurrence of disease were not ill during the year only 13% children suffering from CNDL, occasionally rooting (1-3 times during the year) - 55% often (4 times or more) - 32%. Among children suffering from CNDL number of sickly it turned 4.5 times higher than among healthy children. The most prolonged absenteeism due to illness in school children suffering from CNDL exacerbation occurred at the main chronic diseases and after them from infectious diseases. Average duration absenteeism due to illness was 1.5 times higher than in healthy children. The greatest length of absenteeism was observed in children with chronic pneumonia, the lowest - with respiratory allergies.

It should be noted that the number of days of missed children are not always consistent with the data on the incidence according to information from the clinic. Often omissions attributed complaints of fatigue, weakness, malaise, took place without any special treatment.

We conducted an analysis of gaps (I_p), taking into account the severity of the underlying disease. Results showed that children suffering from CNDL for the school year missed classes much more than their healthy peers virtually (I_p - 18.1 vs. 10.3). The greatest number of missed days was noted in chronic pneumonia (I_p - 24.5). Lots of missed days in children both surveyed groups accounted for 3 training quarter (I_p - 22.5 and 17.3 respectively). Among children suffering from CNDL were 66.7 children with normal physical development, which was 1.3 times lower compared to healthy children (79%), was significantly more numerous group of children underweight (21.4% vs. 13.0%). There were no significant differences in the number of children with excess body weight and children with short stature and possible delay of physical development among subjects not found.

Analysis of physical development, taking into account the severity of the pathology data showed that children underweight are more common among patients with chronic pneumonia, bronchial asthma, among the persons registered on the disease for 3 years or more. Analysis of the annual growth rates of the main body size (height, weight, chest circumference) revealed positive dynamic all examined (Table 1), and at the same time less pronounced annual growth rate of physical development of students CNDL patients.

Table 1 - The average annual gain of physical development of children surveyed

Class	Ill students with CNDL	apparently healthy	P
	Growth. sm		
1 st	3.7±0.26	4.8±0.31	<0.001
2 nd	5.2±0.51	5.3±0.41	<0.1
3 rd	3.5±0.34	3.7±0.39	<0.1
On an average	4.1±0.34	4.6±0.36	<0.1
	Body weight, kg		
1 st	1.4±0.46	2.9±0.32	<0.001
2 nd	2.0±0.39	2.5±0.22	<0.1
3 rd	2.8±0.32	3.6±0.34	<0.01
On an average	2.06±0.30	3.0±0.29	<0.01

The most significant differences in the growth rates of indicators of students 1 class that is probably due to the peculiarities of adaptation of children with CNDL for school. A statistically significant difference in weight gain rate of students compared groups (respectively 2.06 ± 0.3 against 3.0 ± 0.29 , $p < 0.01$).

The study of school maturity level showed that among all the surveyed students of the first class are the most numerous group of mature and among mid-adult children, immature group was higher among children with CNDL and was 10.8% vs. 8.70%. Revealing a certain regularity between the health levels of the degree of pathology and the successful execution of certain tasks (Table 2). So overall performance rating Kerna- Jirasek test for mature children with CNDL appeared worse than in healthy adult children (7.4 ± 0.21 against 5.9 ± 0.17 ; $p < 0.01$), the average execution time motometric specify the length (1.02 ± 0.09 vs. 0.79 ± 0.05 ; $p < 0.05$). The lowest index successful execution of these jobs were in mature children with chronic pneumonia.

In order to determine the operational readiness of children for school compared the studied school maturity indicators reacting to the workload on a comprehensive assessment of the individual proof-samples, identification of indicators of efficiency n-type and dominant performance (S.M.Grombakh; G.M.Sapozhnikova). It turned out that the performance of the surveyed students by the end of the school day is reduced, as proved decrease in the speed and accuracy of its implementation but children suffering from bronchopulmonary diseases quickly tired than their healthy peers, their performance below. Analysis of the relevant curves shows that in most cases proebladaet favorable type of performance, but the proportion of negative type schoolchildren CNDL patients is 1.5 times higher than in healthy children (38.9% versus 26.6%, respectively), the reduction factor R more significantly (from 1.73 to 0.63 versus 1.6 and 0.91).

Table 2 - The relationship between the level of health and success of the assignments of students to enroll in the first class

Mature children	Test					
	Kern- Jirasek, points				cut a circle	
	image	phrase	dots	Total score	the average time of the assignment	The average numbers of mistakes
Ill with CNDL	2.8±0.08	2.1±0.17	2.5±0.29	7.4±0.21	1.02±0.09	2.1±0.39
Ill with chronic pneumonia	3.1±0.15	2.7±0.10	2.9±0.15	8.7±0.14	1.24±0.07	2.6±0.45
Apparently healthy	2.3±0.20	1.5±0.10	2.1±0.23	5.9±0.17	0.79±0.05	1.2±0.25
P	<0.05	<0.01	<0.1	<0.01	<0.05	<0.05

It was found that children suffering from CNDL more often than in healthy discrepancy noted adverse reactions to the workload with indicators of school maturity.

Conclusions. Thus, studies have shown that children of primary school age suffering from CNDL lower health indicators than the healthy of their peers, most of them suffer comorbidities, have higher overall incidence of a large number of often ill children with a slower pace of increase in body weight less students who have normal physical development. On admission to the school children with CNDL have a sufficient level of operational readiness. However, the current operating mode often makes demands that exceed their functionality and readiness for school.

Therefore, these students, along with therapeutic measures need to be individually and pedagogical approach. One possible way to a differentiated approach to teaching these children in mainstream schools - the creation of special classes to facilitate the learning mode (an extra day off, liberation from the past lessons, reducing the volume of homework).

REFERENCES

- 1 Antropova M.V., Efimova S.P., Loseva O.A. Mode of the day, performance and health of schoolchildren (at training for new programs). - M.: 1974. - 416 p.
- 2 Grombah S.M. V kn. Performance and health of the studing children in the modern schools. - M.: 1974. - 258 p.
- 3 Dubinskaya I.D., Zueva E.B., Lashneva I.P. Hygiene issues of primary schools. - M.: 1978. - 390 p.
- 4 Kazanskaya V.V. Social and hygienic characteristics of lung diseases. - Leningrad: 1975. - 454 p.
- 5 Oparin I.A. Physiological development of children of school and pre-school age in Leningrad. - Leningrad: 1975. - 342 p.
- 6 Sapozhnikova G.M. Hygienic issues of primary schools. - M.: 1978. - 597 p.
- 7 Sapozhnikova R.G. Hygiene of education in schools. - M.: 1974. - 283 p.
- 8 Serdyukovskaya G.N. Social conditions and social health of schoolchildren. - M.: 1979. - 234 p.
- 9 Serdyukovskaya G.N., Grombah S. M. Hygienic assessment of student learning in schools. - M.: 1975. - 267 p.
- 10 Stromskaya E.P. APN RSFSR. - M.: 1954. - 306 p.
- 11 Tisheckii V. I., Shiryayeva K.F. Social-hygienic characteristic of lung deseases. - Leningrad: 1975. - 336 p.

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СОЗЫЛМАЛЫ ӨКПЕ АУРУЛАРЫМЕН НАУҚАСТАНҒАН МЕКТЕП ОҚУШЫЛАРЫНЫҢ ОҚУ РЕЖИМІНІҢ ГИГИЕНАЛЫҚ МӘСЕЛЕЛЕРІ

Түйін: Негізгі зерттеу жұмысының мақсаты жалпы білім беретін мекемелердегі созылмалы өкпе ауруымен ауыратын оқушылардың денсаулық жағдайын зерттеу. Нақты мамандармен тексеру, ағзаның қоршаған ортаға тұрақтылығын анықтау, дене бітімінің даму деңгейі бойынша денсаулық жағдайын зерттеу жылына екі рет жүргізіледі. Алынған мәліметтер бойынша өкпе ауруымен ауыратын оқушылардың денсаулық жағдайында едәуір өзгерістердің пайда болуы, яғни, аурушандылық деңгейінің жоғарлауы, физикалық дене бітімінің дамуының төмендеуі көптеген балаларда қосымша ауытқулардың бар екенін көрсетті.

Түйінді сөздер: оқушылар, денсаулық жағдайы, аурушандық, күн тәртібі, оқу процесі

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ГИГИЕНИЧЕСКИЕ ВОПРОСЫ РЕЖИМА ОБУЧЕНИЯ ШКОЛЬНИКОВ С ХРОНИЧЕСКИМИ ЗАБОЛЕВАНИЯМИ ЛЕГКИХ

Резюме: Целью настоящего исследования явилось изучение состояния здоровья школьников с хроническими заболеваниями легких в условиях средней школы. Изучение состояния здоровья проводится дважды в год, оно включает соматический осмотр у специалистов, определение резистентности организма, уровня физического развития и его гармоничности. Полученные данные выявили ряд особенностей в состоянии здоровья школьников, страдающих от заболеваний легких, большинство детей имеют сопутствующую патологию, более высокий уровень заболеваемости, более медленные темпы физического развития; нормальное физическое развитие характерно меньшую долю таких детей.

Ключевые слова: школьники, состояние здоровья, заболеваемость, режим дня, учебный процесс