UDC 616.33-008.6-053.2:616.342-002-092-036-07

PROBLEMS OF DISTRIBUTION, PATHOGENESIS, DIAGNOSIS OF CHRONIC GASTRITIS AND PEPTIC ULCER DISEASE ASSOCIATED WITH HELICOBACTER PYLORI INFECTION

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✓ ***Rezyume***

We studied the prevalence of HP associated pathology in 1200 school-age children. Of these, 400 are schoolchildren, 400 are adolescents, and 400 are children of early adolescence. Revealed 215 children with suspected pathology in the gastroduodenal zone. The EGDS method was used as a screening and the diagnosis was confirmed in 207 children. The results of endoscopic examinations confirmed the disease of the gastroduodenal zone in 182 children. Among school-age patients, there were 14 boys (17.7%), 17 girls (16.5%), among adolescent children, 21 boys (26.6%), 27 girls (26.2%), and among children of early adolescence age, the number of boys and girls increased by 2.1 times compared to adolescence. The children of Bukhara have a high prevalence of gastroduodenal pathology, which indicates the unfavorable state of health of children.

Key words: Helicobacter pylori, children, gastroduodenitis, prevalence, dyspepsia, syndromes.

ПРОБЛЕМЫ РАСПРОСТРАНЕНИЯ, ПАТОГЕНЕЗА, ДИАГНОСТИКИ ХРОНИЧЕСКОГО ГАСТРИТА И ЯЗВЕННОЙ БОЛЕЗНИ, АССОЦИИРОВАННЫХ С ИНФЕКЦИЕЙ HELICOBACTER PYLORI

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✓ ***Резюме***

Распространенность Helicobacter pylori (HP) ассоциированной патологии изучена у 1200 детей школьного возраста. Из них 400 детей школьного возраста, 400 подросткового и 400 дети раннего юношеского возраста. Выявлено 215 детей с подозрением на патологию в гастродуоденальной зоны. В качестве скрининга был использован метод эзофагогастродуденоскопия (ЭГДС) и диагноз был подтвержден у 207 детей. Результаты эндоскопических исследований позволили подтвердить заболевание гастродуоденальной зоны у 182 детей. Среди пациентов школьного возраста мальчиков наблюдалось 14 (17,7%), девочек 17 (16,5%), среди детей подросткового возраста мальчиков 21 (26,6%), девочек 27 (26,2%), а среди детей раннего юношеского возраста в 2,1 раза увеличивалось число мальчиков и девочек по сравнению подросткового возраста. У детей г. Бухары имеет высокую распространенность гастродуоденальной патологии, которая констатирует о неблагополучном состоянии здоровья детей. Установлены особенности клинической выраженности эпигастральной боли у детей в зависимости от возраста: подростковые дети чаще указывали на наличие еженедельных болей в эпигастрии (P<0,05), а дети раннее юношеского возраста указывали на наличие ежедневных болей.

Ключевые слова: Helicobacter pylori, дети, гастродуоденит, распространенность, диспепсия, синдромы.

HELICOBACTER PYLORI ГА БОҒЛИҚ СУРУНКАЛИ ГАСТРИТ ВА ЯРА КАСАЛЛИГИНИНГ ТАРҚАЛИШИ, ПАТОГЕНЕЗИ ВА ДИАГНОСТИКАСИДАГИ МУАММОЛАР

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✓ ***Резюме***

Helicobacter pylori га боғлиқ Гастродуоденал паталогиянинг тарқалиши 1200 та мактаб ёшидаги болаларда ўрганилди.Уларнинг 400 таси мактаб ёшидаги болалар.400таси ўсмирлар ва 400 таси эрта ёшлилардир. 215 нафар болада гастродуоденал паталогия борлиги аниқланди. Скрининг усули сифатида ФГДС усули қўлланилди.Эндоскопик тадқиқотлар натижалари 182 та болада гастродуоденал паталогия борлигини тасдиқлади.

Калит сўзлар: Helicobacter pylori, болалар, гастродуоденит, диспепсия

Relevance

Numerous studies on the prevalence of chronic diseases of the digestive system in various regions of the world indicate their high level. In Uzbekistan, there are single works reflecting the results of epidemiological studies among children with diseases of the gastrointestinal tract [1,2]. Thus, when studying the prevalence and structure of non-communicable diseases of the digestive system in 1019 children of preschool and school age in the Tashkent region, 37.3% of children had biliary dyskinesia, 23.5% had chronic gastroduodenitis, 11.7% had chronic cholecystitis, 5.9% have chronic hepatitis and 2% have duodenal ulcer [3,4].

Epidemiological studies of gastroenterological diseases conducted in different regions of Uzbekistan showed approximately equal H. pylori infection in children. In Tashkent, the prevalence of H. pylori was 7.12%, in Samarkand region 6.04%, in Syrdarya region 6.04%, in Tashkent region 5.8%. In the Republic of Karakalpakstan - an average of 5.9%. In children, the frequency of gastritis and gastroduodenitis showed an annual increase of 2.65% [4].

However, studies of children from the city of Bukhara regarding the prevalence of HP-associated diseases of the gastroduodenal zone in them have not been available so far, epidemiological, clinical, ethnic features, issues of early diagnosis, clinical examination, principles of rational therapy in the age aspect have not been covered either. Therefore, the aim of the study was to study the prevalence of HP associated gastroduodenal pathology in children in Bukhara.

Materials and methods

To identify the epidemiology of the pathology of the gastroduodenal zone, 1200 from 7 to 18 years old, living in the city of Bukhara, were examined. The sample size was carried out according to the formula for the marginal sampling error, subject to a 4% inaccuracy size. The subjects were selected at three schools by random sampling according to certain letters of the alphabet of classroom magazines.

All examined children and their parents were informed about the conduct of scientific research about the goals, methods and possible complications during the research, and parents signed informed consent to participate in the surveys.

Information about the health status of children was received from the examined children themselves, parents and family doctors. For all examined children, a specially developed questionnaire for studying the prevalence was filled out, taking into account possible risk factors for diseases. Specially designed questionnaires noted complaints, anamnestic data and the objective state of children. When analyzing complaints, the presence of dyspepsia syndrome (unexplored dyspepsia) was diagnosed, including pain or discomfort in the epigastric region, closer to the midline, observed more than 6 times during the past year. It was assumed that this would provide an opportunity to collect the most accurate information about the prevalence of gastroduodenal pathology in children in Bukhara, to obtain information about previously unrecognized, and sometimes asymptomatic, variants of their course. We assumed that

Methods of both descriptive (studying the prevalence of chronic gastroduodenitis and peptic ulcer disease) and analytical (search for factors that determine the occurrence of diseases) epidemiology were used.

The accumulated material was entered into special cards, which were entered for each student. For identified sick children, special chips were filled in, and in conclusion, statistical processing and analysis of all indicators were performed. To confirm the disease of the gastroduodenal zone, endoscopic studies were performed.

Results and discussion

The prevalence of HP associated pathology was studied by us in 1200 school-age children. Of these, 400 are children of school age, 400 are teenagers and 400 are children of early youth. 215 children with suspected pathology in the gastroduodenal zone were identified. EGDS was used as a screening method and the diagnosis was confirmed in 207 children. Of these, 25 children refused additional interventions for the identification of helicobacteriosis, so they were not included in further development. The results of endoscopic studies made it possible to confirm the disease of the gastroduodenal zone in 182 children.

Among school-age patients, 14 (17.7%) boys were observed, 17 (16.5%) girls, among adolescents, 21 (26.6%) boys, 27 (26.2%) girls, and among children of early youth age, the number of boys and girls increased by 2.1 times compared to adolescence (Table 1).

Table 1

Distribution of patients with chronic gastroduodenal pathology by sex and age

Age	Total	Total number of examined children				Total number of identified children n= 182			
		boys		Girls		boys		Girls	
		n	%	N	%	n	%	N	%
7-11	400	171	30.4	227	35.6	14	17.7	17	16.5
12-15	400	187	33.2	218	34.2	21	26.6	27	26.2
16-18	400	204	36.4	193	30.2	44	55.7	59	57.3
Total	1200	562	46.8	638	53.2	79	43.4	103	56.6

In the course of the study in 1200 children, we encountered an abundance of dyspeptic complaints, which were presented by every 7 students, which indicates the relevance of the problem of diseases of the gastroduodenal zone in children in Bukhara.

However, a detailed analysis found that in a significant part of the children, dyspeptic complaints were sporadic, and only in 56.5% of cases of schoolchildren in Bukhara, the manifestations of dyspepsia were systematic.

It is believed that the epidemiological indicators of dyspepsia among schoolchildren often increase with age, which is associated with the accumulation of bad habits (Table 2).

Table 2

The prevalence of dyspeptic complaints of schoolchildren depending on age

Age (years)	Total (182)		Including					
			Pain in the epigastrium		Discomfort in the epigastrium		Dyspeptic phenomena	
	abs.	%	abs.	%	abs.	%	abs.	%
1. 7-11	31	17.0	6	3.2	4	2.2	9	5.0
2. 12-15	48	26.4	sixteen	8.8	thirteen	7.1	23	12.6
3. 16-18	103	56.6	81	44.5	63	34.6	47	25.8
Total	182	15.2	103	56.5	80	44.0	79	43.4
p1-3			<0.001		<0.001		<0.001	
p2-3			<0.001		<0.001		<0.001	

The result, in our opinion, can only indicate that each age group of children has its own set of adverse factors. For children of adolescence and adolescence, these can be: puberty, the emergence of bad habits, while for school age, the immaturity of physiological systems is more important, which gives a breakdown due to an increase in functional load in the process of starting school.

In children of all age groups, there was a significantly significant difference prevalence of dyspeptic complaints. Children of adolescence and early youth were significantly more likely to present with dyspeptic complaints (P<0.001) compared to school-age children.

Two important characteristics of the course of dyspeptic syndromes were analyzed: the age of onset and the duration of dyspeptic complaints in children, which, to one degree or another, obviously, can be associated with the severity of gastroduodenal lesions.

It has been established that in 54.8% of children the onset of dyspeptic complaints occurs at preschool age (Table 3.). At the same time, 33.5% of children have complaints already before the start of the learning process at school, which is a rather unfavorable indicator and, to a certain extent, may be associated with early infection. H. pylori.

Table 3

Age characteristics of the appearance of dyspeptic complaints in children

Age (years)	n	Up to 7 years		7-14 years old		Over 14 years old	
		abs.	%	abs.	%	abs.	%
1. 7-11	31	17	54.8	14	45.1	-	-
2. 12-15	48	21	43.7	sixteen	33.3	eleven	23.0
3. 16-18	103	23	22.3	49	47.5	54	52.4
Total	182	61	33.5	79	43.5	42	23.0
p1-3		<0.001		<0.001		<0.001	
p2-3		<0.001		<0.001		<0.001	

Children of the early youth age group significantly less often (p <0.001) indicated the appearance of complaints at preschool age. These differences, on the one hand, indicate the inconstancy of the presence of dyspeptic complaints in children, and on the other hand, it is possible that the clinic in some children in the early period was not so pronounced that the episode of dyspepsia was not imprinted in the memory of the child and his parents. At the same time, obviously, older children, indicating the early appearance of complaints, have a more persistent nature of dyspepsia.

The recurrent and intermittent nature of dyspeptic complaints in children is also evidenced by the results of the analysis of their duration (Table 4.).

Table 4

Characteristics of dyspeptic complaints by duration in children in age groups

Age (years)	n	Up to 2 years		Over 2 years		R
		abs.	%	abs.	%	
7-11	31	21	67.7	10	32.3	<0.001
12-15	48	31	64.6	17	35.4	<0.05
16-18	103	61	59.2	42	40.8	<0.05
Total	182	113	62.1	69	37.9	<0.001

Regardless of age, more than half of the children had a duration of dyspeptic complaints within two years. At the same time, in adolescents and children of early adolescence, there was a statistically insignificant trend towards an increase in the number of children with a long course of dyspeptic disorders with age.

We analyzed the characteristics of epigastric pain depending on age and gender. The most noteworthy characteristic of complaints is the frequency of their occurrence (Table 5.). It was established that more than half of 54.8% of school-age children noted pain in the epigastric region with a frequency of monthly, and only 29.0% of children had them weekly and 16.2% more often.

At the same time, there were no significant differences in data on the frequency of clinical manifestations of dyspepsia among boys and girls. However, among children of early adolescence, there was a trend towards an increase in daily complaints of epigastric pain, the frequency of which was 3 times higher than in adolescents (P<0.001). This fact, in our opinion, may be associated with the severity of the inflammatory process of the mucosa of the stomach and duodenum and is a consequence of greater morphological problems in children of early adolescence.

Table 5

The frequency of epigastric pain depending on age and gender

Age (years)		n	Monthly		Weekly (including daily)		Daily	
			abs.	%	abs.	%	abs.	%
7-11	M	14	eight	57.2	4	28.5	2	14.3
	D	17	9	53.0	5	29.4	3	17.6
1. Total		31	17	54.8	9	29.0	5	16.2
12-15	M	21	9	42.8	7	33.3	5	23.9
	D	27	eleven	40.7	9	33.3	7	26.0
2. Total		48	twenty	41.6	sixteen	33.4	12	25.0
16-18	M	44	thirteen	29.5	15	34.1	sixteen	36.4
	D	59	15	25.4	21	35.6	23	39.0
3. Total		103	28	27.2	36	35.0	39	37.8
Total	M	79	thirty	38.1	26	33.0	23	29.1
	D	103	35	34.1	35	34.1	33	31.8
4. Total		182	65	35.7	61	33.5	56	30.7
p1-2			>0.05		>0.05		<0.001	
R1-3			<0.001		>0.05		<0.001	
R2-3			<0.001		>0.05		<0.05	

Weekly and more frequent complaints of pain in the epigastric region at all ages were noted by girls. This gender feature of the course of dyspepsia was more visible in the group of children of early adolescence (P<0.001); while in adolescents and school-age children it was only a trend (P>0.05). At the same time, the prevalence of daily epigastric pain was higher in girls than in boys (P<0.05) in all age groups.

Conclusions

In children of Bukhara, there is a high prevalence of gastroduodenal pathology, which states about the unfavorable state of children's health.

The features of the clinical severity of epigastric pain in children depending on age were established: adolescent children more often indicated the presence of weekly pain in the epigastrium (P<0.05), and children of early adolescence indicated the presence of daily pain.

LIST OF REFERENCES:

1. Габибов Р.С., Дадамов Р.А., Ахмедов Т.С. Проблемы распространения, патогенеза, диагностики и лечения хронического гастрита и язвенной болезни, ассоциированных с инфекцией Helicobacter pylori //Доказательная гастроэнтерология №4. 2017. С.20-24. [Gabibov R.S., Dadamov R.A., Akhmedov T.S. Problemy rasprostraneniya, patogeneza, diagnostiki i lecheniya khronicheskogo gastrita i yazvennoy bolezni, assotsiirovannykh s infektsiyey Helicobacter pylori //Dokazatel'naya gastroenterologiya №4. 2017. S.20-24.]
2. Ихсанов С.Д., Сергиенко Д.Ф. Язвенная болезнь у детей: современный взгляд на проблему // Современные проблемы науки и образования. – 2017. – № 2. [Ikhsanov S.D., Sergiyenko D.F. YAzvennaya bolezn' u detey: sovremennyy vzglyad na problemu // Sovremennyye problemy nauki i obrazovaniya. – 2017. – № 2.]
3. Пазилова С.А. Заболевания пищеварительного тракта у детей //Мед. Журн. Узбекистана. -2016. -№4.-С.12-15. [Pazilova S.A. Zabolevaniya pishchevaritel'nogo trakta u detey //Med. Zhurn. Uzbekistana. -2016. -№4.-S.12-15.]
4. Умарова Ш.З. Анализ статистики гастроэнтерологических больных в Республике Узбекистан / Ш.З. Умарова, Наргиза Мухамед Умаровна Султанбаева, А. З. Норов. - Текст: непосредственный // Молодой ученый. - 2019. - № 3 (241). - С. 100-105. [Umarova SH.Z. Analiz statistiki gastroenterologicheskikh bol'nykh v Respublike Uzbekistan / SH.Z. Umarova, Nargiza Mukhamed Umarovna Sultanbayeva, A. Z. Norov. - Tekst: neposredstvennyy // Molodoy uchenyy. - 2019. - № 3 (241). - S. 100-105.]
5. Шодиева М.С. Иммуногенетические аспекты Helicobacter pylori ассоциированной гастродуоденальной патологии у детей // Новый день в медицине - 2020.- №2/1(30/1). - С. 151-153. [Shodiyeva M.S. Immunogeneticheskiye aspekty Helicobacter pylori assotsiirovannoy gastroduodenal'noy patologii u detey // Novyy den' v meditsine - 2020.- №2/1(30/1). - S. 151-153.] https://newdaymedicine.com/index.php/journal-issue/
6. Шодиева М.С., Комилова Б.О. Иммуногенетические аспекты Helicobacter Pylori ассоцированной гастродуоденальной патологии у детей //Российский журнал гастроэнтрологии, гепатологии, колопроктологии. Россия. - 2019. - №5 том 26. - С. 57-59. [Shodiyeva M.S., Komilova B.O. Immunogeneticheskiye aspekty Helicobacter Pylori assotsirovannoy gastroduodenal'noy patologii u detey //Rossiyskiy zhurnal gastroentrologii, gepatologii, koloproktologii. Rossiya. - 2019. - №5 tom 26. - S. 57-59.]
7. Shodiyeva MS Immunogenetic Aspects Helicobacter Pylori Associated Gastroduodenal Pathology in Children // The American Journal of medical sciences and pharmaceutical research - 2020. August 20.- P. 58-63.

Entered 09.01.2022