



New Day in Medicine
Новый День в Медицине

NDM



TIBBIOVIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

6 (56) 2023

Сопредседатели редакционной коллегии:

**Ш. Ж. ТЕШАЕВ,
А. Ш. РЕВИШВИЛИ**

Ред. коллегия:

М.И. АБДУЛЛАЕВ
А.А. АБДУМАЖИДОВ
А.Ш. АБДУМАЖИДОВ
Р.Б. АБДУЛЛАЕВ
Л.М. АБДУЛЛАЕВА
М.М. АКБАРОВ
Х.А. АКИЛОВ
М.М. АЛИЕВ
С.Ж. АМИНОВ
Ш.Э. АМОНОВ
Ш.М. АХМЕДОВ
Ю.М. АХМЕДОВ
Т.А. АСКАРОВ
М.А. АРТИКОВА
Ж.Б. БЕКНАЗАРОВ (главный редактор)
Е.А. БЕРДИЕВ
Б.Т. БУЗРУКОВ
Р.К. ДАДАБАЕВА
М.Н. ДАМИНОВА
К.А. ДЕХКОНОВ
Э.С. ДЖУМАБАЕВ
Н.Н. ЗОЛотова
А.Ш. ИНОЯТОВ
С. ИНДАМИНОВ
А.И. ИСКАНДАРОВ
С.И. ИСМОИЛОВ
Э.Э. КОБИЛОВ
Д.М. МУСАЕВА
Т.С. МУСАЕВ
Ф.Г. НАЗИРОВ
Н.А. НУРАЛИЕВА
Б.Т. РАХИМОВ
Х.А. РАСУЛОВ
Ш.И. РУЗИЕВ
С.А. РУЗИБОВЕВ
С.А. ГАФФОРОВ
С.Т. ШАТМАНОВ (Кыргызстан)
Ж.Б. САТТАРОВ
Б.Б. САФОВЕВ (отв. редактор)
И.А. САТИВАЛДИЕВА
Д.И. ТУКСАНОВА
М.М. ТАДЖИЕВ
А.Ж. ХАМРАЕВ
А.М. ШАМСИЕВ
А.К. ШАДМАНОВ
Н.Ж. ЭРМАТОВ
Б.Б. ЕРГАШЕВ
Н.Ш. ЕРГАШЕВ
И.Р. ЮЛДАШЕВ
Д.Х. ЮЛДАШЕВА
А.С. ЮСУПОВ
М.Ш. ХАКИМОВ
Д.О. ИВАНОВ (Россия)
К.А. ЕГЕЗАРЯН (Россия)
DONG JINCHENG (Китай)
КУЗАКОВ В.Е. (Россия)
Я. МЕЙЕРНИК (Словакия)
В.А. МИТИШ (Россия)
В.И. ПРИМАКОВ (Беларусь)
О.В. ПЕШИКОВ (Россия)
А.А. ПОТАПОВ (Россия)
А.А. ТЕПЛОВ (Россия)
Т.Ш. ШАРМАНОВ (Казахстан)
А.А. ЩЕГОЛОВ (Россия)
Prof. Dr. KURBANHAN MUSLUMOV (Azerbaijan)
Prof. Dr. DENIZ UYAK (Germany)

www.bsmi.uz

<https://newdaymedicine.com>

E: ndmuz@mail.ru

Тел: +99890 8061882

**ТИББИЁТДА ЯНГИ КУН
НОВЫЙ ДЕНЬ В МЕДИЦИНЕ
NEW DAY IN MEDICINE**

Илмий-рефератив, маънавий-маърифий журнал

Научно-реферативный,

духовно-просветительский журнал

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

Национальный медицинский
исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

РЕДАКЦИОННЫЙ СОВЕТ:

М.М. АБДУРАХМАНОВ (Бухара)
Г.Ж. ЖАРЫЛКАСЫНОВА (Бухара)
А.Ш. ИНОЯТОВ (Ташкент)
Г.А. ИХТИЁРОВА (Бухара)
Ш.И. КАРИМОВ (Ташкент)
У.К. КАЮМОВ (Тошкент)
Ш.И. НАВРУЗОВА (Бухара)
А.А. НОСИРОВ (Ташкент)
А.Р. ОБЛОКУЛОВ (Бухара)
Б.Т. ОДИЛОВА (Ташкент)
Ш.Т. УРАКОВ (Бухара)

6 (56)

2023

июнь

Received: 20.05.2023, Accepted: 30.05.2023, Published: 15.06.2023.

УДК 616.233-002

EFFECTIVENESS OF SECONDARY PREVENTION OF CHILDREN WITH BRONCHIOECTATIC DISEASE WITH DELAYED SEXUAL DEVELOPMENT

Sharipova O.A. <https://ocid.org/000-0001-6830-21348>
Normakhmatov B.B. <https://ocid.org/0009-0004-3565-3148>

Samarkand State Medical University Uzbekistan, Samarkand, st. Amir Temur, Tel: +99818 66 2330841 E-mail: sammi@sammi.uz

✓ Resume

A study was conducted to study the characteristics of sexual development and measures of secondary prevention in patients with bronchiectasis (BED). The study included 52 boys with bronchiectasis aged 11 to 16 years with mental retardation. Cylindrical bronchiectasis was detected in 45 (87%) patients, and saccular bronchiectasis in 7 (13%) patients. It was revealed that BEB negatively affects the sexual development of boys. The pace of development of secondary sexual characteristics occurs gradually and does not end until the end of puberty. Contribute the complex staged secondary prevention proposed by us in children with to the improvement of both the underlying disease and sexual development.

Keywords: children; bronchiectasis; sexual development; secondary prevention.

ЭФФЕКТИВНОСТЬ ВТОРИЧНОЙ ПРОФИЛАКТИКИ У ДЕТЕЙ БРОНХОЭКТАТИЧЕСКОЙ БОЛЕЗНЬЮ С ЗАДЕРЖКОЙ ПОЛОВОГО РАЗВИТИЯ

Шарипова О.А. <https://ocid.org/000-0001-6830-21348>
Нормахматов Б.Б. <https://ocid.org/0009-0004-3565-3148>

Самаркандский государственный медицинский университет Узбекистан, г.Самарканд, ул. Амира Темура, Тел: +99818 66 2330841 E-mail: sammi@sammi.uz

✓ Резюме

Проведено исследование по изучению особенностей полового развития и меры вторичной профилактики у больных с бронхоэктатической болезнью (БЭБ). В исследование включено 52 мальчиков с бронхоэктатической болезнью в возрасте от 11 до 16 лет с ЗПР. У 45 (87%) обследованных были выявлены цилиндрические бронхоэктазы, у 7 (13%) - мешотчатые бронхоэктазы. Выявлено, что БЭБ отрицательно влияет на половое развитие мальчиков. Темпы развития вторичных половых признаков происходит постепенно и не завершается до конца пубертата. Предложенная нами комплексная этапная вторичная профилактика детям с БЭБ способствовала улучшению, как основного заболевания, так и полового развития.

Ключевые слова: дети; бронхоэктатический болезнь; половое развитие; вторичная профилактика.

BRONXIOEKTATIK BEMOR BOLALARNING IKILAMCHI JINSIY RIVOJLANISH SAMARADORLIGI PROFILAKTIKASI

Sharipova O.A. <https://ocid.org/000-0001-6830-21348>
Normakhmatov B.B. <https://ocid.org/0009-0004-3565-3148>

Samarqand davlat tibbiyot universiteti O'zbekiston, Samarqand, Amir Temur kochasi, Tel: +99818 66 2330841 E-mail: sammi@sammi.uz

✓ Rezyume

Bronxoektaziya (BED) bilan og'rigan bemorlarda jinsiy rivojlanish xususiyatlarini va ikkilamchi profilaktika choralarini o'rganish bo'yicha tadqiqot o'tkazildi. Tadqiqotda 11 yoshdan 16 yoshgacha bo'lgan bronxoektaz bilan og'rigan 52 o'g'il bola davolandi. 45(87%) bemorda silindrsimon bronxoektaziya, 7(13%) bemorda xaltachali bronxoektaziya aniqlangan. BEB o'g'il bolalarning jinsiy rivojlanishiga salbiy ta'sir ko'rsatishi aniqlandi. Ikkilamchi jinsiy xususiyatlarning rivojlanish sur'ati asta-sekin sodir bo'ladi va balog'atga etishish oxirigacha tugamaydi. BE bilan og'rigan bolalarda biz tomonidan taklif qilingan murakkab bosqichli ikkilamchi profilaktika asosiy kasallik va jinsiy rivojlanishni yaxshilashga yordam berdi.

Kalit so'zlar: bolalar; bronxoektaziya; jinsiy rivojlanish; ikkilamchi profilaktika.

Relevance

Chronic lung diseases are not only a medical, but also a social problem that requires the supervision of both pediatricians and, in the future, pulmonologists [4].

In recent decades, due to the improvement of diagnostic methods and treatment of chronic lung diseases in children, there have been significant advances in solving this problem. However, there are a number of issues that have received little attention so far. The question of the mechanisms of delayed sexual development remains unexplored, as well as the development of methods for secondary prevention in patients with chronic lung diseases [2,7,8].

With bronchiectasis in children, intoxication is noted, and the compensatory function of the body also decreases. These patients often develop anemia, rapid weight loss, general weakness, delayed physical and sexual development. It should be emphasized that even with a favorable course of bronchiectasis, a clear clinical improvement, morphological changes in the lungs do not undergo reverse development. The remaining morphological changes are the basis for the continuation of the inflammatory process in the bronchopulmonary system, so a vicious circle is created [3,4,5].

Pathological changes in any link in the chain of the endocrine system will lead not only to a change in the function of this endocrine gland, but also to the whole organism as a whole, including the reproductive system[1,6,9]. The most vulnerable is areproductive system during its formation. And only timely diagnosis of disorders of sexual development with subsequent correction can lead to social and psychological rehabilitation of the patient.

Thus, the relevance of the topic lies in the need to carry out a study of the state of sexual development in bronchiectasis, for the development and effectiveness of secondary prevention of disturbance of sexual development.

Aim research: to study the effectiveness of secondary prevention in children with bronchiectasis with delayed sexual development in follow-up observations.

Characteristics of children and research methods

We examined 52 boys with bronchiectasis aged 11 to 16 years with mental retardation. Cylindrical bronchiectasis was revealed in 45 (87%) patients, and saccular bronchiectasis in 7 (13%) patients. Acquired bronchiectasis was diagnosed in 46 (88.4%) patients with a history of repeated pneumonia transferred at an early age, as well as foreign bodies of the bronchi, destructive lung diseases, keeled chest. In 6 (10.7%) patients, bronchiectasis occurred due to a congenital malformation of bronchopulmonary tissue (polycystic lung disease, Kartagener's syndrome) and hereditary pathology (Aers' syndrome, Hamman-Rich syndrome, hypoplastic anemia). Bilateral lesions were observed in 22 (42.3%) patients, unilateral lesions in 30 (57.7%) patients. Condition after lobectomy of the lower lobe of the left lung was noted in 6 (11.5%), after pneumonectomy of the right lung - in 1 (1.9%) of the examined patients. All patients were admitted to the clinic with a specified diagnosis after bronchographic studies and computed tomography.

The degree of sexual development of patients was assessed in accordance with the stages of sexual development according to Tanner. When assessing the PR of boys, the severity of pubic (P) and axillary hair growth (Ax), the size of the penis and testicles were determined.

Results and their discussion

When analyzing the features of the PR of boys with bronchiectasis, we identified the following changes (Table 1).

Table 1. Comparative dynamics of genitometric parameters in patients with bronchiectasis

Age, years		11	12	13	14	15	16
Penis	Length sm	2,5±0,16	2,89±0,09**	3,4±0,22*	3,48±0,42**	4,5±0,13*	5,2±0,21**
		3,02±0,15	3,94±0,36	4,53±0,31	6,2±0,39	6,14±0,74	7,36±0,18
	Transverse sm	1,41± 0,08	1,56±0,04*	1,8±0,10	2,01±0,14*	2,04±0,1*	2,25±0,07**
		1,5±0,06	1,88±0,1	2,10±0,11	2,47±0,11	2,46±0,13	2,8±0,05
Testicle on the right	Length sm	1,5±0,2	2,55±0,11*	2, 4±0,14**	2,8±0,12**	3,1±0,14*	3,28±0,12**
		2,55±0,18	3,10±0,09	3,42±0,21	3,82±0,13	3,88±0,38	4,12±0,06
	Transverse sm	1,06±0,09	1,63±0,08*	1,82±0,08*	1,98±0,06*	1,95±0,11*	2,02±0,09**
		1,26±0,08	1,82±0,07	2,12±0,11	2,26±0,09	2,41±0,14	2,75±0,07
Testicle on the left	Length sm	1,08±0,4*	2,4±0,09*	2,23±0,11**	2,9±0,19**	3,0±0,2	3,17±0,12**
		2,43±0,18	2,93±0,18	3,45±0,21	3,91±0,13	3,85±0,31	4,34±0,08
	Transverse sm	1,25±0,07*	1,53±0,07*	1,73±0,09	1,8±0,06**	1,84±0,08	1,93±0,09**
		1,2±0,08	1,71±0,08	1,99±0,2	2,24±0,08	2,27±0,13	2,88±0,06

Note: * ** - significance of differences in comparison with the data of the control group ($P<0.05$; $P<0.001$);
- in the numerator - indicators of patients, in the denominator – healthy boys.

In boys aged 11 years, unreliable deviations from the norm were revealed in indicators reflecting the size of the penis and right testicle ($P>0.1$). However, starting from the age of 12, these indicators in all examined begin to noticeably lag behind those of healthy children. So, in boys aged 12 years, the dimensions (length and diameter) of the penis are significantly less than the normative indicators, respectively $P<0.001$ and $P<0.05$. We found a lag in all genetic parameters in patients aged 14, 15 and 16 years.

Patients were observed for two to four years, every 6 and 12 months.

Taking into account that patients with bronchiectasis are accompanied by a delay in sexual development, we proposed a scheme of complex therapy and developed stages 2 and 3 of complex prevention Table 2. Patients of the main group for the purpose of secondary prevention after 6.12 months repeatedly received the 2nd and 3rd stages of complex treatment.

Table 2. The scheme of secondary prevention of patients with bronchiectasis with delayed sexual development.

Scheme of the I-stage of treatment of patients with bronchiectasis		
Stage I, in combination with conventional therapy, in a hospital	-Reamberin 10ml/kg intravenous drip	7 days
	-Aevit 1 capsule 1 time per day, inside.	30 days
	-Calcium D3 1 tablet 2 times a day, inside.	1 month
	Timoptin 100mcg once a day intramuscularly.	6 days
Scheme II and III - stages of secondary prevention of patients with bronchiectasis		
II - stage for the purpose of secondary prevention, after 6 months	-Reamberin 10ml/kg intravenously drip.	7 days
	-Aevit 1 capsule 1 time per day, inside.	2 months
	-Calcium-D3 Nycomed 1 tablet 2 times a day.	2 months
III - stage for the purpose of secondary prevention, after 12 months	-Reamberin 10ml/kg intravenously drip.	7 days
	-Aevit 1 capsule 2 times a day, inside	2 months
	-Calcium-D3 Nycomed 1 tablet 2 times a day, inside.	2 months
	-Timoptin 50mcg IM once a day.	6 days

Notes: for the period of the entire treatment and observation, patients were prescribed full nutrition and drainage massage, breathing exercises.

To determine the effectiveness of complex therapy with the inclusion of Reamberin, Aevit, calcium D3 and Timoptin, the patients were divided into two groups.

Group I consisted of 28 (53.8%) patients who, in combination with conventional therapy, received a staged treatment scheme proposed by us, group II consisted of 24 (46.2%) patients with only conventional treatment. The generally accepted treatment of bronchiectasis in children was based on the recommendations of domestic and foreign authors, included antibiotic therapy, mucolytics, expectorants, vitamin therapy, exercise therapy, physiotherapy.

A comparative study of the effectiveness of complex staged therapy with traditional therapy made it possible to identify faster positive clinical dynamics, the elimination of symptoms of an exacerbation of the disease, which contributed to a rapid improvement in the general condition of patients, the disappearance of symptoms of intoxication and a significant dynamics of physical phenomena, as well as indicators of sexual development.

As can be seen from Table 3, in patients with bronchiectasis in the age subgroup of 13 years, the length of the testis was less than 2.5 cm, as in healthy boys of 12 years old. There was also a lag in all genetic parameters at the age of 14, 15 and 16 years $P < 0.001$. A comparative aspect of the test carried out a year later showed that in patients receiving secondary prevention, the size of the testicles had a sufficient growth effect, compared with the control group, and the length of the testicle reached 2.5 cm at the age of 12 years, while in the control group there were no significant changes in the size of the testicles. In the group of patients with conventional treatment, the complete identity of the sizes of the testicles of 15-16-year-old adolescents with 12-13-year-old healthy children also attracted attention. Table 3.

Table 3. Comparative dynamics of genitometric parameters following the 3rd stage of complex prevention

Age, years		12	13	14	15	16	17
Penis	Length sm	2,8±0,12	3,7±0,23	4,2±0,24	5,2±0,51	6,2±0,24	7,3±0,21
		2,5±0,09	2,9±0,08	3,6±0,21	3,74±0,39	5,15±0,36	5,84±0,19
	Transverse sm	1,6±0,07	1,9±0,1	2,12±0,14	2,3±0,18	2,76±0,14	2,8±0,06
		1,43±0,08	1,62±0,05	1,86±0,12	2,1±0,14	2,12±0,21	2,38±0,08
Testicle on the right	Length sm	2,5±0,12	3,1±0,18	3,2±0,15	3,5±0,14	3,94±0,25	4,12±0,09
		1,8±0,21	2,62±0,12	2,7±0,17	2,96±0,15	3,21±0,19	3,23±0,1
	Transverse sm	1,52±0,12	1,96±0,09	2,06±0,07	2,39±0,09	2,61±0,15	2,7±0,08
		1,21±0,09	1,66±0,07	1,9±0,09	2,04±0,08	2,06±0,13	2,24±0,07
Testicle on the left	Length sm	1,36±0,09	2,94±0,11	3,2±0,22	3,66±0,21	4,16±0,28	4,32±0,07
		1,19±0,1	2,46±0,08	2,42±0,14	3,1±0,26	3,5±0,22	3,78±0,09
	Transverse sm	1,42±0,06	1,83±0,08	1,96±0,08	2,17±0,07	2,58±0,18	2,76±0,07
		1,3±0,07	1,58±0,06	1,78±0,09	1,94±0,09	1,92±0,07	2,2±0,09

Note: - in the numerator - indicators of the main group, in the denominator - the control group.

In healthy children between the ages of 12 and 15 there is a significant increase in the penis. So, its length increases from the age of 9 (2.85 ± 0.22 cm) to 15 years (6.14 ± 0.74 cm) by 2.15 times, and by the age of 17 the growth of the penis stops (7.50 ± 0.23 cm). In patients with CLD before treatment at the age of 15-16 years, the size of the penis corresponded to the size of 12-13-year-old healthy adolescents. After the secondary prophylaxis in patients of the main group, the size of the penis had a sufficient growth effect, compared with the control group $P < 0.05$; $P < 0.001$.

As can be seen from the data shown in Table 3, in patients who received secondary prevention, a year and two years later, the genetic parameters significantly increased. Thus, in children of the control group, genetic indicators did not significantly increase ($P > 0.1$), and in the group of children who received secondary prevention by the age of 16-17, the size of the genital organs significantly ($P < 0.05$) increased approaching the indicators of healthy children.

In patients who received secondary prophylaxis a year later, along with an increase in the size of the genital organs, pilosis of the pubis and axillary zone was revealed at the age of 12-14 years. In patients 15-16 years old, hair growth appeared, extending beyond the pubic joint, and the hair became darker (P3), which corresponded to stage III according to Tanner. Thus, hair growth of the axillary zone also began at the age of 13-14 years in patients of the main group, while in the control group of patients this sign was revealed at the age of 15-16 years in only 48%. In patients receiving secondary prevention, oigarche became regular in 58% of the majority of boys aged 14-15 years. In patients of the control group, this sign was observed in only 14% of patients.

Thus, the treatment of bronchiectasis (BED) is a complex therapeutic problem and requires the use of a complex of therapeutic agents aimed at all links of pathogenesis involved in the formation and

course of these diseases in children. The complex staged secondary prevention proposed by us for children with BE proved to be quite effective and contributed to the improvement of both the underlying disease and indicators of sexual development. In addition, secondary prevention of BE during puberty resulted in improvement in genetic parameters.

Conclusions

1. With bronchiectasis in boys of pubertal age, clinical signs of delayed sexual development were revealed: a decrease in the size of the genital organs and the late appearance of other secondary sexual characteristics.
2. In patients with bronchiectasis who received secondary prevention, a year and two years later, genetic parameters significantly increased, approaching those of healthy children at the age of 16-17.
3. In patients who received secondary prophylaxis, a year later, along with an increase in the size of the genital organs, secondary sexual characteristics appeared which corresponded to age parameters.

LIST OF REFERENCES:

1. Bakhronov S. S. et al. Clinical Significance of T-31c Polymorphism of IL-1 β Gene in Recurrent Bronchitis in Children Annals of the Romanian Society for Cell Biology. (2021):4742-4748.
2. Bobomuratov T.A., Sharipova O.A. Features of the physical and sexual development of boys with bronchiectasis Pediatrics. (2010) 1:86-90.
3. Zhukovsky M.A. Disturbance of sexual development. Moscow "Medicine" (1989):269.
4. Klimanov V.V. Endoscopic diagnosis and treatment of chronic pulmonary suppuration in children Abstract of the thesis. Dis... cand. Medical sciences Ufa, (2003):16.
5. Lev N.S., Rozinova N.N. Bronchiectasis in children. Attending physician (2004):08.
6. Mamedova Galina Peculiarities of various variants of puberty, hypogonadism in males and ways of their correction: Abstract of the thesis. Dis... cand. Medical sciences Tashkent, (1998):20.
7. Sharipova O.A., Bobomuratov T.A., Mamatkulova D.H., Turaeva N.O. Correlation of hormonal status indicators of physical and sexual development in children with chronic bronchitis European Science Review. Austria, Vienna. (2017) 1-2:159-161.
8. Sharipova O.A., Bobomuratov T.A., Turaeva N.O. Evaluation of sexual development in patients with bronchiectatic disease XXIXth International Scientific and Practical Conference "International scientific review of the problems and prospects of modern science and education". – Boston, (2016) 21(31):74-76.
9. Schaefer F., Mehls O. Endocrine and growth disturbances. Pediatric Nephrology (ed 4). Lippincott Williams and Wilkins (1999):1197-1230.

Entered 20.05.2023