

CRR
JOURNAL
OF CARDIORESPIRATORY RESEARCH

ISSN 2181-0974
DOI 10.26739/2181-0974



Journal of
CARDIORESPIRATORY
RESEARCH



Special Issue 4.1

2022

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ
РЕСПУБЛИКИ УЗБЕКИСТАН

Журнал кардиореспираторных исследований

JOURNAL OF CARDIORESPIRATORY RESEARCH

Главный редактор: Э.Н.ТАШКЕНБАЕВА

Учредитель:

Самаркандский государственный
медицинский университет

Tadqiqot.uz

Ежеквартальный
научно-практический
журнал

ISSN: 2181-0974

DOI: 10.26739/2181-0974



N^o SI-4.1
2022

Главный редактор:

Ташкенбаева Элеонора Негматовна

доктор медицинских наук, заведующая кафедрой внутренних болезней №2 Самаркандского Государственного медицинского университета, председатель Ассоциации терапевтов Самаркандской области. <https://orcid.org/0000-0001-5705-4972>

Заместитель главного редактора:

Хайбулина Зарина Руслановна

доктор медицинских наук, руководитель отдела биохимии с группой микробиологии ГУ «РСНПМЦХ им. акад. В. Вахидова» <https://orcid.org/0000-0002-9942-2910>

ЧЛЕНЫ РЕДАКЦИОННОЙ КОЛЛЕГИИ:

Аляви Анис Лютфуллаевич

академик АН РУз, доктор медицинских наук, профессор, Председатель Ассоциации Терапевтов Узбекистана, Советник директора Республиканского специализированного научно-практического центра терапии и медицинской реабилитации (Ташкент) <https://orcid.org/0000-0002-0933-4993>

Бокерия Лео Антонович

академик РАН, доктор медицинских наук, профессор, Президент научного центра сердечно-сосудистой хирургии им. А.Н. Бакулева (Москва), <https://orcid.org/0000-0002-6180-2619>

Курбанов Равшанбек Давлетович

академик АН РУз, доктор медицинских наук, профессор, Советник директора Республиканского специализированного научно-практического медицинского центра кардиологии (Ташкент), <https://orcid.org/0000-0001-7309-2071>

Шкляев Алексей Евгеньевич

д.м.н., профессор, ректор Федерального государственного бюджетного образовательного учреждения высшего образования «Ижевская государственная медицинская академия» Министерства здравоохранения Российской Федерации

Michał Tendera

профессор кафедры кардиологии Верхнесилезского кардиологического центра, Силезский медицинский университет в Катовице, Польша (Польша) <https://orcid.org/0000-0002-0812-6113>

Покушалов Евгений Анатольевич

доктор медицинских наук, профессор, заместитель генерального директора по науке и развитию сети клиник «Центр новых медицинских технологий» (ЦНМТ), (Новосибирск), <https://orcid.org/0000-0002-2560-5167>

Акилов Хабибулла Атауллаевич

доктор медицинских наук, профессор, Директор Центра развития профессиональной квалификации медицинских работников (Ташкент)

Ризаев Жасур Алимджанович

доктор медицинских наук, профессор, Ректор Самаркандского государственного медицинского университета, <https://orcid.org/0000-0001-5468-9403>

Абдиева Гулнора Алиевна

ассистент кафедры внутренних болезней №2 Самаркандского государственного медицинского университета, <https://orcid.org/0000-0002-6980-6278> (ответственный секретарь)

Зиядуллаев Шухрат Худойбердиевич

доктор медицинских наук, доцент, проректор по научной работе и инновациям Самаркандского Государственного медицинского университета <https://orcid.org/0000-0002-9309-3933>

Зуфаров Миржамол Мирумарович

доктор медицинских наук, профессор, руководитель отдела ГУ «РСНПМЦХ им. акад. В. Вахидова» <https://orcid.org/0000-0003-4822-3193>

Ливерко Ирина Владимировна

доктор медицинских наук, профессор, заместитель директора по науке Республиканского специализированного научно-практического медицинского центра фтизиатрии и пульмонологии Республики Узбекистан (Ташкент) <https://orcid.org/0000-0003-0059-9183>

Цурко Владимир Викторович

доктор медицинских наук, профессор Первого Московского государственного медицинского университета им. И.М. Сеченова (Москва) <https://orcid.org/0000-0001-8040-3704>

Камилова Умида Кабировна

д.м.н., профессор, заместитель директора по научной работе Республиканского специализированного научно-практического медицинского центра терапии и медицинской реабилитации (Ташкент) <https://orcid.org/0000-0002-1190-7391>

Тураев Феруз Фатхуллаевич

доктор медицинских наук, Директор Республиканского специализированного научно-практического медицинского центра эндокринологии имени академика Ю.Г. Туракулова

Саидов Максуд Арифович

к.м.н., директор Самаркандского областного отделения Республиканского специализированного научно-практического медицинского центра кардиологии (г. Самарканд)

Насирова Зарина Акбаровна

PhD, ассистент кафедры внутренних болезней №2 Самаркандского Государственного Медицинского университета (ответственный секретарь)

Bosh muharrir:

Tashkenbayeva Eleonora Negmatovna

*tibbiyot fanlari doktori, Samarqand davlat tibbiyot universiteti 2-sonli ichki kasalliklar kafedrasini mudiri,
Samarqand viloyati vrachlar uyushmasi raisi.
<https://orsid.org/0000-0001-5705-4972>*

Bosh muharrir o'rinbosari:

Xaibulina Zarina Ruslanovna

*tibbiyot fanlari doktori, "akad V. Vohidov nomidagi RIJM davlat institutining mikrobiologiya guruhi
bilan biokimyo kafedrasini mudiri" <https://orcid.org/0000-0002-9942-2910>*

TAHRIRIYAT A'ZOLARI:

Alyavi Anis Lyutfullayevich

*O'zbekiston Respublikasi Fanlar akademiyasining akademigi, tibbiyot fanlari doktori, professor,
O'zbekiston Terapevtlar uyushmasi raisi, Respublika ixtisoslashtirilgan ilmiy va amaliy tibbiy terapiya markazi va tibbiy reabilitatsiya direktori maslahatchisi (Toshkent), <https://orcid.org/0000-0002-0933-4993>*

Bockeria Leo Antonovich

Rossiya fanlar akademiyasining akademigi, tibbiyot fanlari doktori, professor, A.N. Bakuleva nomidagi yurak-qon tomir jarrohligi ilmiy markazi prezidenti (Moskva) <https://orcid.org/0000-0002-6180-2619>

Kurbanov Ravshanbek Davlatovich

O'zbekiston Respublikasi Fanlar akademiyasining akademigi, tibbiyot fanlari doktori, professor, Respublika ixtisoslashtirilgan kardiologiya ilmiy-amaliy tibbiyot markazining direktor maslahatchisi (Toshkent) <https://orcid.org/0000-0001-7309-2071>

Shklyayev Aleksey Evgenievich

Tibbiyot fanlari doktori, professor, Rossiya Federatsiyasi Sog'liqni saqlash vazirligining "Izhevsk davlat tibbiyot akademiyasi" Federal davlat byudjeti oliy ta'lim muassasasi rektori

Mixal Tendra

Katovitsadagi Sileziya Tibbiyot Universiteti, Yuqori Sileziya Kardiologiya Markazi kardiologiya kafedrasini professori (Polsha) <https://orcid.org/0000-0002-0812-6113>

Pokushalov Evgeniy Anatolevich

tibbiyot fanlari doktori, professor, "Yangi tibbiy texnologiyalar markazi" (YTTM) klinik tarmog'ining ilmiy ishlar va rivojlanish bo'yicha bosh direktorining o'rinbosari (Novosibirsk) <https://orcid.org/0000-0002-2560-5167>

Akilov Xabibulla Ataulayevich

tibbiyot fanlari doktori, professor, Tibbiyot xodimlarining kasbiy malakasini oshirish markazi direktori (Toshkent)

Rizayev Jasur Alimjanovich

tibbiyot fanlari doktori, professor, Samarqand davlat tibbiyot universiteti rektori <https://orcid.org/0000-0001-5468-9403>

Abdiyeva Gulnora Aliyevna

Samarqand davlat tibbiyot universiteti 2-sonli ichki kasalliklar kafedrasini assistenti (mas'ul kotib) <https://orcid.org/0000-0002-6980-6278>

Ziyadullayev Shuxrat Xudoyberdiyevich

tibbiyot fanlari doktori, dotsent, Samarqand davlat tibbiyot universitetining fan va innovatsiyalar bo'yicha prorektori (Samarqand) <https://orcid.org/0000-0002-9309-3933>

Zufarov Mirjamol Mirumarovich

tibbiyot fanlari doktori, professor, "akad V. Vohidov nomidagi RIJM davlat muassasasi" bo'limi boshlig'i" <https://orcid.org/0000-0003-4822-3193>

Liverko Irina Vladimirovna

tibbiyot fanlari doktori, professor, Respublika ixtisoslashtirilgan fiziologiya va pulmonologiya ilmiy-amaliy tibbiyot markazining ilmiy ishlar bo'yicha direktor o'rinbosari (Toshkent) <https://orcid.org/0000-0003-0059-9183>

Surko Vladimir Viktorovich

tibbiyot fanlari doktori, professori I.M. Sechenov nomidagi Birinchi Moskva Davlat tibbiyot universiteti (Moskva) <https://orcid.org/0000-0001-8040-3704>

Kamilova Umida Kabirovna

tibbiyot fanlari doktori, professor, Respublika ixtisoslashtirilgan terapiya va tibbiy reabilitatsiya ilmiy-amaliy tibbiyot markazi ilmiy ishlari bo'yicha direktor o'rinbosari (Toshkent) <https://orcid.org/0000-0002-1190-7391>

Turayev Feruz Fatxullayevich

tibbiyot fanlari doktori, akademik Y.X.To'raqulov nomidagi Respublika ixtisoslashtirilgan endokrinologiya ilmiy amaliy tibbiyot markazi direktori <https://orcid.org/0000-0002-1321-4732>

Saidov Maqsud Arifovich

tibbiyot fanlari nomzodi, Respublika ixtisoslashgan kardiologiya ilmiy amaliy tibbiyot markazi Samarqand viloyat mintaqaviy filiali direktori (Samarqand)

Nasirova Zarina Akbarovna

Samarqand davlat tibbiyot instituti 2-sonli ichki kasalliklar kafedrasini assistenti, PhD (mas'ul kotib)

Chief Editor:

Tashkenbaeva Eleonora Negmatovna

Doctor of Medical Sciences, Head of the Department of Internal Diseases No. 2 of the Samarkand State Medical University, Chairman of the Association of Physicians of the Samarkand Region.
<https://orcid.org/0000-0001-5705-4972>

Deputy Chief Editor:

Xaibulina Zarina Ruslanovna

Doctor of Medical Sciences, Head of the Department of Biochemistry with the Microbiology Group of the State Institution "RSSC named after acad. V. Vakhidov", <https://orcid.org/0000-0002-9942-2910>

MEMBERS OF THE EDITORIAL BOARD:

Alyavi Anis Lutfullaevich

Academician of the Academy of Sciences of the Republic of Uzbekistan, Doctor of Medical Sciences, Professor, Chairman of the Association of Physicians of Uzbekistan, Advisor to the Director of the Republican Specialized Scientific - Practical Center of Therapy and Medical Rehabilitation (Tashkent)
<https://orcid.org/0000-0002-0933-4993>

Bockeria Leo Antonovich

Academician of the Russian Academy of Sciences, Doctor of Medical Sciences, Professor, President of the Scientific Center for Cardiovascular Surgery named after A.N. Bakuleva (Moscow)
<https://orcid.org/0000-0002-6180-2619>

Kurbanov Ravshanbek Davletovich

Academician of the Academy of Sciences of the Republic of Uzbekistan, Doctor of Medical Sciences, Professor, Advisor to the Director Republican Specialized Scientific and Practical Medical Center of Cardiology, (Tashkent)
<https://orcid.org/0000-0001-7309-2071>

Shklyayev Aleksey Evgenievich

Doctor of Medical Sciences, Professor, Rector of the Federal State Budgetary Educational Institution of Higher Education "Izhevsk State Medical Academy" of the Ministry of Health of the Russian Federation

Michal Tendera

Professor of the Department of Cardiology, Upper Silesian Cardiology Center, Silesian Medical University in Katowice, Poland (Poland)
<https://orcid.org/0000-0002-0812-6113>

Pokushalov Evgeny Anatolyevich

Doctor of Medical Sciences, Professor, Deputy Director General for Science and Development of the Clinic Network "Center for New Medical Technologies" (CNMT), (Novosibirsk)
<https://orcid.org/0000-0002-2560-5167>

Akilov Xabibulla Atullaevich

Doctor of Medical Sciences, Professor, Center for the development of professional qualifications of medical workers (Tashkent)

Rizaev Jasur Alimjanovich

Doctor of Medical Sciences, Professor, Rector of the Samarkand State Medical University
<https://orcid.org/0000-0001-5468-9403>

Abdieva Gulnora Alievna

Assistant of the Department of Internal Diseases No. 2 of the Samarkand State Medical University
<https://orcid.org/0000-0002-6980-6278>
(Executive Secretary)

Ziyadullaev Shuhrat Khudoyberdievich

Doctor of Medical Sciences, Associate Professor, Vice-Rector for Science and Innovation of the Samarkand State Medical University (Samarkand)
<https://orcid.org/0000-0002-9309-3933>

Zufarov Mirjamol Mirumarovich

Doctor of Medical Sciences, Professor, Head of the Department of the State Institution "RSNPMTSH named after acad. V. Vakhidov"
<https://orcid.org/0000-0003-4822-3193>

Liverko Irina Vladimirovna

Doctor of Medical Sciences, Professor, Deputy Director for Science of the Republican Specialized Scientific and Practical Medical Center for Phthysiology and Pulmonology of the Republic of Uzbekistan (Tashkent)
<https://orcid.org/0000-0003-0059-9183>

Tsurko Vladimir Viktorovich

Doctor of Medical Sciences, professor Of Moscow State Medical University by name I.M. Sechenov (Moscow)
<https://orcid.org/0000-0001-8040-3704>

Kamilova Umida Kabirovna

Doctor of Medicine, professor, deputy director of Scientific unit of the Republican specialized scientific and practical medical center for therapy and medical rehabilitation (Tashkent)
<https://orcid.org/0000-0002-1190-7391>

Turaev Feruz Fatxullaevich

Doctor of Medical Sciences, Director of the Republican Specialized Scientific and Practical Medical Center of Endocrinology named after Academician Yu.G. Turakulova

Saidov Maksud Arifovich

Candidate of Medical Sciences, Director of the Samarkand Regional Department of the Republican Specialized Scientific and Practical Medical Center of Cardiology (Samarkand)

Nasyrova Zarina Akbarovna

PhD, Assistant of the Department of Internal Diseases No. 2 of the Samarkand State Medical University (Executive Secretary)

Алимов Дониёр Анварович
доктор медицинских наук, директор
Республиканского научного центра
экстренной медицинской помощи

Янгиев Бахтиёр Ахмедович
кандидат медицинских наук,
директор Самаркандского филиала
Республиканского научного центра
экстренной медицинской помощи

Абдуллаев Акбар Хатамович
доктор медицинских наук, главный
научный сотрудник Республиканского
специализированного научно-практического
центра медицинской терапии и
реабилитации
<https://orcid.org/0000-0002-1766-4458>

Агабабян Ирина Рубеновна
кандидат медицинских наук, доцент,
заведующая кафедрой терапии ФПДО,
Самаркандского Государственного
медицинского института

Алиева Нигора Рустамовна
доктор медицинских наук, заведующая
кафедрой Госпитальной педиатрии №1 с
основами нетрадиционной медицины
ТашПМИ

Исмаилова Адолат Абдурахимовна
доктор медицинских наук, профессор,
заведующая лабораторией
фундаментальной иммунологии Института
иммунологии геномики человека АН РУз

Камалов Зайнитдин Сайфутдинович
доктор медицинских наук, профессор,
заведующий лабораторией иммунорегуляции
Института иммунологии и геномики
человека АН РУз

Каюмов Улугбек Каримович
доктор медицинских наук, профессор,
заведующий кафедрой внутренних болезней
и телемедицины Центра развития
профессиональной квалификации
медицинских работников

Хусинова Шоира Акбаровна
кандидат философских наук, доцент,
заведующая кафедрой общей практики,
семейной медицины ФПДО Самаркандского
Государственного медицинского института

Шодиколова Гуландом Зикрияевна
д.м.н., профессор, заведующая кафедрой
внутренних болезней № 3 Самаркандского
Государственного Медицинского
Института (Самарканд)
<https://orcid.org/0000-0003-2679-1296>

Alimov Doniyor Anvarovich
tibbiyot fanlari doktori, Respublika
shoshilinch tibbiy yordam ilmiy markazi
direktori (Toshkent)

Yangiyev Baxtiyor Axmedovich
tibbiyot fanlari nomzodi,
Respublika shoshilinch tibbiy
yordam ilmiy markazining
Samarqand filiali direktori

Abdullaev Akbar Xatamovich
tibbiyot fanlari doktori, O'zbekiston
Respublikasi Sog'liqni saqlash vazirligining
"Respublika ixtisoslashtirilgan terapiya va
tibbiy rehabilitatsiya ilmiy-amaliy
tibbiyot markazi" davlat
muassasi bosh ilmiy xodimi
<https://orcid.org/0000-0002-1766-4458>

Agababyan Irina Rubenovna
tibbiyot fanlari nomzodi, dotsent, DKTF,
terapiya kafedrasini mudiri, Samarqand
davlat tibbiyot instituti

Alieva Nigora Rustamovna
tibbiyot fanlari doktori, 1-sonli gospital
pediatriya kafedrasini mudiri, ToshPTI

Ismoilova Adolat Abduraximovna
tibbiyot fanlari doktori, professor,
O'zbekiston Respublikasi Fanlar
akademiyasining Odam genomikasi
immunologiyasi institutining fundamental
immunologiya laboratoriyasining mudiri

Kamalov Zaynitdin Sayfutdinovich
tibbiyot fanlari doktori, professor,
O'zbekiston Respublikasi Fanlar
akademiyasining Immunologiya va inson
genomikasi institutining Immunogenetika
laboratoriyasi mudiri

Qayumov Ulug'bek Karimovich
tibbiyot fanlari doktori, professor, Tibbiyot
xodimlarining kasbiy malakasini oshirish
markazi, ichki kasalliklar va teletibbiyot
kafedrasini mudiri (Toshkent)

Xusinova Shoira Akbarovna
tibbiyot fanlari nomzodi, dotsent,
Samarqand davlat tibbiyot instituti DKTF
Umumiy amaliyot va oilaviy tibbiyot
kafedrasini mudiri (Samarqand)

Shodiqulova Gulandom Zikriyevna
tibbiyot fanlari doktori, professor,
Samarqand davlat tibbiyot instituti 3- ichki
kasalliklar kafedrasini mudiri (Samarqand)
<https://orcid.org/0000-0003-2679-1296>

Alimov Doniyor Anvarovich
Doctor of Medical Sciences, Director of the
Republican Scientific Center of Emergency
Medical Care

Yangiev Bakhtiyor Axmedovich
PhD, Director of Samarkand branch of
the Republican Scientific Center of
Emergency Medical Care

Abdullaev Akbar Xatamovich
Doctor of Medical Sciences,
Chief Researcher of the State Institution
"Republican Specialized Scientific and
Practical Medical Center for Therapy and
Medical Rehabilitation" of the Ministry of
Health of the Republic of Uzbekistan,
<https://orcid.org/0000-0002-1766-4458>

Agababyan Irina Rubenovna
PhD, Associate Professor, Head of the
Department of Therapy, FAGE, Samarkand
State Medical Institute

Alieva Nigora Rustamovna
Doctor of Medical Sciences, Head of the
Department of Hospital Pediatrics No. 1 with
the basics of alternative medicine, TashPMI

Ismailova Adolat Abduraximovna
doctor of Medical Sciences, Professor, Head of
the Laboratory of Fundamental Immunology of
the Institute of Immunology of Human
Genomics of the Academy of Sciences
of the Republic of Uzbekistan

Kamalov Zaynitdin Sayfutdinovich
doctor of Medical Sciences, Professor, Head of
the Laboratory of Immunogenetics of the
Institute of Immunology and Human Genomics
of the Academy of Sciences of the
Republic of Uzbekistan

Kayumov Ulugbek Karimovich
Doctor of Medical Sciences, Professor,
Head of the Department of Internal Diseases
and Telemedicine of the Center for the
development of professional qualifications
of medical workers

Khusinova Shoira Akbarovna
PhD, Associate Professor, Head of the
Department of General Practice,
Family Medicine FAGE of the
Samarkand State Medical Institute

Shodiqulova Gulandom Zikriyevna
Doctor of Medical Sciences, professor, head of
the Department of Internal Diseases N 3 of
Samarkand state medical institute (Samarkand)
<https://orcid.org/0000-0003-2679-1296>

ОБЗОРНЫЕ СТАТЬИ/ADABIYOTLAR SHARHI/ REVIEW ARTICLES

- 1 **Абдиева Г.А., Ташкенбаева Э.Н.**
Влияние метаболического синдрома на течение ишемической болезни сердца у больных COVID-19
Abdiyeva G.A., Tashkenbayeva E.N.
The effect of metabolic syndrome on the course of coronary heart disease in patients with COVID-19
Abdiyeva G.A., Tashkenbayeva E.N.
Metabolik sindromning COVID-19 bilan og'rigan bemorlarda koronar yurak kasalliklari yo'nalishiga ta'siri..... 9
- 2 **Насирова Д.А., Ташкенбаева Э.Н.**
Грядущая эпидемия мерцательной аритмии и сопутствующих ей заболеваний – повод для беспокойства
Nasirova D.A., Tashkenbayeva E.N.
The upcoming epidemic of atrial fibrillation and associated diseases is a cause for concern
Nasirova D.A., Tashkenbayeva E.N.
Kelajakda bo'lmachalar fibrillyatsiyasi epidemiyasi va unga hamroh kasalliklar – xavotirga sabab..... 16
- 3 **Шавози Н.М., Алланазаров А.Б.**
Особенности рецидивирующей респираторной инфекции у детей
Shavazi N.M., Allanazarov A.B.
Characteristics of repeated respiratory infections in children
Shavazi N.M., Allanazarov A.B.
Bolalarda takrorlangan respirator infeksiyon xususiyatlari..... 21

ОРИГИНАЛЬНЫЕ СТАТЬИ/ORIGINAL MAQOLALAR/ORIGINAL ARTICLES


- 4 **Абдуллоева М.Д., Хасанжанова Ф.О.**
Оценка психологических расстройств у больных острым коронарным синдромом
Abdulloeva M.D., Khasanjanova F.O.
Assessment of psychological disorders in patients with acute coronary syndrome
Abdulloeva M.D., Khasanjanova F.O.
O'tkir koronar sindrom bilan kasallangan bemorlarda psixologik buzilishlarni baholash..... 26
- 5 **Алланазаров А.Б., Мамаризаев И.К., Мардонов А., Жалилова С.**
Факторы риска развития острого бронхообструктивного синдрома у часто болеющих детей по данным рнцэмп самаркандского филиала
Allanazarov A.B., Mamarizayev I.K., Mardonov A.J.
Risk factors for the development of acute bronchobstructive syndrome in frequently ill children according to the data of the republic scientific center for emergency medical aid of the samarkand branch
Allanazarov A.B., Mamarizayev I.K., Mardonov A.J.
RSHTYOIM samarqand filiali ma'lumotlariga muvofiq tez-tez kasal bo'ladigan bolalarda o'tkir bronxobstruktiv sindromning rivojlanish xavf omillari..... 31
- 6 **Атаева М.С., Мамаризаев И.К., Джураев Ж.Д., Абдукодироова Ш.Б.**
Характеристика клинического течения острой внебольничной пневмонии у часто болеющих детей на фоне миокардита
Ataeva M.S., Mamarizayev I.K., Juraev Zh.D., Abdukodiroova Sh.B.
Characteristics of the clinical course of acute community-accompany pneumonia in frequently ill children on the background of myocarditis
Ataeva M.S., Mamarizayev I.K., Juraev J.D., Abdukodiroova Sh.B.
Miokardit fonida tez-tez kasal bo'ladigan bolalardagi o'tkir pnevmoniyaning klinik kechish xususiyatlari..... 34
- 7 **Болтакулова С.Д., Хасанжанова Ф.О.**
Частота встречаемости нестабильной стенокардии у больных с хронической обструктивной болезнью сердца в условиях экстренной медицины
Boltakulova S.D., Khasanjanova F.O.
Frequency of occurrence of unstable angina pectoris in patients with chronic obstructive heart disease in the conditions of ectrenic medicine
Boltakulova S.D., Khasanjanova F.O.
Shoshilinch tibbiy yordam sharoitida surunkali obstruktiv o'pka kasalligi fonida ishemik kasalligining uchrash chastotasi..... 37
- 8 **Закирьяева П.О.**
Неспецифическая интерстициальная пневмония: дифференциация интерстициального заболевания легких от аутоиммунных заболеваний
Zakiryayeva P.O.
Non-specific interstitial pneumonia: differentiation of interstitial lung disease from autoimmune diseases
Zakiryayeva P.O.
Nospesefik interstisial pnevmoniya: autoimmun kasalliklar bilan bog'liq interstisial o'pka kasalligini farqlash..... 42
- 9 **Камолова Д.Ж., Эргашева М.Т.**
Изменения миокарда и особенности диастолической дисфункции левого желудочка у беременных с артериальной гипертензией
Kamolova D.J., Ergasheva M.T.
Myocardial changes and features of diastolic dysfunction of the left ventricle in pregnant women with arterial hypertension
Kamolova D.J., Ergasheva M.T.
Arterial gipertenziyasi bo'lgan homilador ayollarda miokarddagi o'zgarishlar va chap qorincha diastolik disfunktsiyasining xususiyatlari..... 47

10	Мирзаев М.К., Ураков А.Х., Хасанжанова Ф.О. Эхокардиографические результаты хирургической реваскуляризации у больных с прогрессирующей стенокардией напряжения Mirzaev M.K., Urakov A.H., Khasanjanova F.O. Echocardiographic results of surgical revascularization in patients with progressive angina pectoris Mirzaev M.K., Urakov A.H., Xasanjanova F.O. Avj olib boruvchi zo'riqish stenokardiyasi bilan og'rigan bemorlarda jarrohlik revaskulyarizatsiyaning exokardiyografik natijalari.....	50
11	Нуриллаева Н.М., Магруппов Т.М., Ярмухамедова Д.З., Абдихаликов С.П. Дистанционный мониторинг и анализ заболеваний сердечно-сосудистой системы Nurillayeva N.M., Magrupov T.M., Yarmukhamedova D.Z., Abdihalikov S.P. Remote monitoring and analysis of diseases of the cardiovascular system Nurillayeva N.M., Magrupov T.M., Yarmukhamedova D.Z., Abdihalikov S.P. Yurak-qon tomir tizimi kasalliklarini masofadan monitoring va tahlil qilish.....	53
12	Сафаров Ж.А., Халилов Н.Х., Ташкенбаева Э.Н., Хасанжанова Ф.О. Частота встречаемости нарушения ритма сердца и показателей реполяризации желудочков при гипертонической болезни осложненным гипертоническим кризом Safarov J.A., Khalilov N.H., Tashkenbayeva E.N., Khasanjanova F.O. The frequency of occurrence of cardiac arrhythmias and ventricular repolarization indicators in hypertensive disease complicated by hypertensive crisis Safarov J.A., Xalilov N.H., Tashkenbayeva E.N., Xasanjanova F.O. Gipertonik kriz bilan asoratlangan gipertoniya kasalligi bor bo'lgan bemorlarda yurak ritmining buzilishi va qorincha repolarizatsiyasi ko'rsatkichlarining uchrash chastotasi.....	57
13	Тогаева Б.М., Ташкенбаева Э.Н., Хайдарова Д.Д., Жумабоев Т.Ш. Особенности клинического течения ишемической болезни сердца у больных в коморбидности с covid-19 с учётом факторов риска Togaeva B.M., Tashkenbayeva E.N., Khaidarova D.D., Zhumaboev T.Sh. Features of the clinical course of coronary heart disease in patients in comorbidity with covid-19, taking into account risk factors Togaeva B.M., Tashkenbayeva E.N., Haidarova D.D., Jumaboev T.Sh. Xavf omillarini hisobga olgan holda covid-19 o'tkazgan bemorlarda koronar yurak kasalliklari klinik kechish xususiyatlari.....	61
14	Хусайнова М.А. Нейропептидно-цитокиновый статус при хронической ишемической болезни сердца Khusainova M.A. Neuropeptide-cytokine status in chronic ischemic heart disease Xusainova M.A. Surunkali yurak ishemik kasalligida neuropeptid-sitokin holati.....	65
15	ШодикULOVA Г.З., САМАТОВ Д.К., КАРАБАЕВА Г.Х., АТОВЕВ Т.Т. Маркеры дисфункции эндотелия и экстрацеллюлярного матрикса у больных с патологией верхних отделов ЖКТ при дисплазии соединительной ткани Shodikulova G.Z., Samatov D.K., Karabaeva G.Kh., Atoev T.T. Markers of endothelial and extracellular matrix dysfunction in patients with pathologies of connective tissue dysplasia with the upper gastrointestinal tract Shodikulova G.Z., Samatov D.K., Karabaeva G.Kh., Atoev T.T. Yuqori oshqozon-ichak trakti bilan biriktiruvchi to'qima displaziyasi bo'lgan bemorlarda endotelial va hujayradan tashqari matritsa disfunktsiyasining markerlari.....	70
16	Ярмухамедова С.Х., Амирова Ш. Характеристика правожелудочковой диастолической дисфункции у больных артериальной гипертензией Yarmukhamedova S.Kh., Amirova Sh. Characteristics of right ventricular diastolic dysfunction in patients with arterial hypertension Yarmuxamedova S.X., Amirova Sh. Arterial gipertenziya bilan og'rigan bemorlarda o'ng qorincha diastolik disfunktsiyasining xususiyatlari.....	75
17	Яхёев А.А., Ташкенбаева Э.Н., Хасанжанова Ф.О. Клинические особенности течения хронической сердечной недостаточности при ишемической болезни сердца Yakheev A.A., Tashenbayeva E.N., Khasanjanova F.O. Clinical features of the course of chronic heart failure in ischemic heart disease Yahyoeyev A.A., Tashkenbaeva E.N., Xasanjanova F.O. Yurak ishemik kasalligi bo'lgan bemorlarda surunkali yurak yetishmovchiligining klinik kechish xususiyatlari.....	79



Хусаинова Мунира Алишеровна
Самаркандский Государственный
Медицинский Университет
Ассистент кафедры пропедевтики
внутренних болезней, Самарканд, Узбекистан

НЕЙРОПЕПТИДНО-ЦИТОКИНОВЫЙ СТАТУС ПРИ ХРОНИЧЕСКОЙ ИШЕМИЧЕСКОЙ БОЛЕЗНИ СЕРДЦА

 <http://dx.doi.org/10.5281/zenodo.0000000>

АННОТАЦИЯ

Распространение метаболического синдрома (МС) в развитых странах, который, по мнению экспертов ВОЗ способствует росту заболеваемости ишемической болезнью сердца (ИБС). Рассеянный склероз в настоящее время считается своего рода кластером факторов риска развития атеросклероза, ишемической болезни сердца и сахарного диабета 2 типа. Поскольку основным диагностическим признаком МС является абдоминальный тип ожирения, естественно предположить, что при его наличии у пациентов с ишемической болезнью сердца должны быть выявлены определенные клинические и патогенетические особенности. По известной аналогии с фенотипами в настоящее время хроническую обструктивную болезнь легких можно считать особым фенотипом ишемической болезни сердца на фоне абдоминального ожирения. Снижение выработки эндорфинов сопровождается повышением активности симпатической системы, увеличением выработки кортизола надпочечниками, стимуляцией глюконеогенеза, усилением синтеза триацилглицеринов и липогенеза, что создает условия для потенцирования атерогенеза.

Ключевые слова: ишемическая болезнь сердца, атеросклероз, тревога, депрессия, бета-эндорфин, цитокины

Khusainova Munira Alisherovna
Samarkand State Medical University
Assistant of the Department of
Propeaedeutics of Internal Diseases,
Samarkand, Uzbekistan

NEUROPEPTIDE-CYTOKINE STATUS IN CHRONIC ISCHEMIC HEART DISEASE

ANNOTATION

The spread of metabolic syndrome (MS) in developed countries, which, according to WHO experts, assumed the nature of a pandemic in the XXI century, contributes to the increase in the incidence of coronary heart disease (CHD). MS is currently considered a kind of cluster of risk factors for atherosclerosis, Coronary heart disease and type 2 diabetes mellitus. Since the main diagnostic sign of MS is abdominal type of obesity, it is natural to assume that if it is present, certain clinical and pathogenetic features should be revealed in patients with coronary heart disease. By a well - known analogy with phenotypes Currently, chronic obstructive pulmonary disease can be considered a special phenotype of coronary heart disease against the background of abdominal obesity. A decrease in the production of endorphins is accompanied by an increase in the activity of the sympathetic system, an increase in the production of cortisol by the adrenal glands, stimulation of gluconeogenesis, increased synthesis of triacylglycerols and lipogenesis, which creates conditions for the potentiation of atherogenesis.

Keywords: ischemic disease, atherosclerosis, anxiety, depression, beta-endorphin, cytokines

Xusainova Munira Alisherovna
Samarqand Davlat Tibbiyot Universiteti
Ichki kasalliklar propedevtikasi
kafedrası assistenti,
Samarqand, O'zbekiston

SURUNKALI YURAK ISHEMIK KASALLIGIDA NEYROPEPTID-SITOKIN HOLATI

ANNOTATSIYA

JSST mutaxassislarining fikriga ko'ra, rivojlangan mamlakatlarda metabolik sindromning (MS) tarqalishi yurak ishemik kasalligining (YIK) ko'payishiga yordam beradi. Tarqoq skleroz hozirgi vaqtda ateroskleroz, yurak tomirlari kasalligi va qandli diabet 2 tipi rivojlanishi uchun xavf omillarining bir turi hisoblanadi. MSning asosiy diagnostik xususiyati semizlikning qorin turi bo'lganligi sababli, agar u yurak tomirlari kasalligi bo'lgan bemorlarda mavjud bo'lsa, ma'lum klinik va patogenetik xususiyatlarni aniqlash kerak deb taxmin qilish tabiiydir. Fenotiplar bilan taniqli

o'xshashlik bilan hozirgi vaqtda surunkali obstruktiv o'pka kasalligi qorin semirib ketishi fonida koronar yurak kasalligining maxsus fenotipi deb hisoblanishi mumkin. Endorfin ishlab chiqarishning pasayishi simpatik tizim faolligining oshishi, buyrak usti bezlari tomonidan kortizol ishlab chiqarishning ko'payishi, glyukoneogenezni stimulyatsiya qilish, triatsilgliserollar sintezining kuchayishi va aterogenezni kuchaytirish uchun sharoit yaratadigan lipogenez bilan birga keladi.

Kalit so'zlar: yurak ishemik kasallik, ateroskleroz, xavotir, depressiya, beta-endorfin, sitokinlar

The occurrence of coronary heart disease in combination with anxiety-depressive disorders is widespread in clinical practice. In such patients, affective spectrum disorders significantly aggravate the course of cardiological pathology in the form of progression of the atherosclerotic process and aggravate the prognosis. In modern literature, much attention is paid to the role of cytokines in the pathogenesis of various diseases. The cytokine network is a self-regulating system, the violation of which leads to excessive or insufficient synthesis of detectable cytokines, which, in turn, can cause the development of various pathological processes that form the basis of a wide range of human diseases. Proinflammatory cytokines have an effect on almost all organs and systems of the body involved in the regulation of the homeostasis system. At the same time, the role of cytokine status changes in the formation and progressive course of occupational neurointoxications is unexplored.

Markers of immune inflammation, and above all cytokines, are of particular importance in the proatherogenic effect in the foci of atherosclerosis. The main regulators of such processes at the neuroimmune level are endogenous opiate peptides. Their role in stabilizing the cytokine content during the development of inflammation in the atherosclerotic plaque and in the process of adaptation of the heart muscle to stressful influences is noted. Despite the availability of reliable data on the role of markers of immune inflammation in atherogenesis, the validity of the regulatory value of opiate peptides in this process is still open questions about the influence of affective spectrum disorders on the neuropeptide-cytokine status of the immune system in patients with chronic coronary artery disease, as well as in what range these changes will be traced in pain and pain-free myocardial ischemia. In this connection, the purpose of this study was to assess the effect of the severity of anxiety-depressive disorders on the neuropeptide-cytokine status of the immune system in patients with chronic coronary artery disease in various clinical variants of its course, as well as a comparative characteristic of the degree of these changes in pain and pain-free myocardial ischemia.

Groups were formed, which, in turn, were divided into subgroups according to the percentage of painful and pain-free episodes of angina pectoris: 1st (n = 36) – patients with chronic coronary heart disease occurring against the background of moderate anxiety-depressive disorders; 2nd (n = 34) - subjects with chronic coronary heart disease and mild anxiety-depressive disorders; 3rd (n = 20) - patients with chronic coronary heart disease without anxiety-depressive disorders; 4th (n = 22) – control (healthy individuals). By the presence of painful and pain-free episodes of angina pectoris the authors highlighted: in the 1st group of patients, the painful form of coronary heart disease was detected in 44% of the examined (n = 17), the painless form of coronary heart disease was found in 56% of patients (n = 19); in the 2nd group of patients, the painful form of coronary heart disease - in 52% of the examined (n = 18), the painless form of coronary heart disease – in 48% (n = 16); in the 3rd group, the painful form CHD was confirmed in 37% of patients (n = 8), the painless form of CHD – in 63% of patients (n = 12). In all groups, the state of the psychophysiological status (psychological testing), the level of autonomic regulation (β -endorphin), the function of the cardiovascular system (SMECG) and peripheral blood levels of TNF α , IL-1 β , IL-6 and IL-4, IL-10 were evaluated. In the course of a clinical and laboratory examination, the authors found that in patients with chronic IHD, anxiety-depressive disorders have a direct pathological effect on the neuropeptide-cytokine status of the immune system in the form of suppression beta-endorphin, increasing the level of pro-inflammatory and reducing anti-inflammatory cytokines. At the same time, the most significant changes occur in subjects with pain-free myocardial ischemia.

INTRODUCTION

Anxiety-depressive disorders in comorbidity with diseases of the cardiovascular system are widespread in the clinic of internal diseases.

At the same time, the presence of anxiety-depressive disorders in patients with coronary heart disease (CHD) has acquired the greatest relevance in clinical practice. In such patients, affective spectrum disorders significantly aggravate the course of cardiological pathology, contribute to the progression of atherosclerotic processes and lead to earlier complications in the form of myocardial infarction and strokes. Among the main pathophysiological mechanisms of the effect of anxiety-depressive disorders on the atherosclerotic process in patients with coronary heart disease, such as disruption of interactions between the autonomic nervous and immune systems, activation of immune inflammation in the atherosclerotic plaque, the formation of an imbalance between the action of pro-inflammatory and anti-inflammatory cytokines should be considered.

The special importance of markers of the immune system, and above all cytokines, to have a proatherogenic effect in the foci of atherosclerosis is noted. Thus, TNF α enhances the expression of adhesion molecules on the endothelium, activates macrophages, neutrophils, promotes the secretion of prostaglandins and causes the synthesis of proteins of the acute phase of inflammation. IL-1 β triggers a cascade of inflammatory processes after damage to the endothelial wall, and IL - 6 promotes activation of the endothelium, enhances its adhesive ability to platelets and leukocytes, which leads to proliferation of smooth muscle elements of the vascular bed.

Regulators of pro-inflammatory and anti-inflammatory cytokines in the atherosclerotic process are endogenous opiate peptides of the autonomic nervous system (ANS). A special role here belongs to opioid peptides from the proopiomelanocortin group, and first of all β -endorphin. Marked the ability of beta-endorphin to regulate cytokine production during the development of inflammatory processes during stress and depressive disorders. In addition, β -endorphin participates in the formation of stable anti-inflammatory activity during the progression of immune inflammation and thereby supports compensatory and adaptive nature of the immune system against the background of unfavorable external and internal conditions. High activity of β -endorphin increases the resistance of the myocardium to ischemic damage against the background of emotional stress, as well as in the process of adaptation of the heart muscle to stressful influences.

Thus, it follows from the above that atherosclerotic changes in the myocardium are the result of complex processes of neuroimmune interactions, in which the main role is assigned to cytokine links of the immune system and endogenous opiate peptides. Their participation in the atherosclerotic process, as a rule, strictly correlates with the presence of chronic stress in the anamnesis and, as a result, will be an unfavorable prognostic factor not only in the formation of anxiety-depressive disorders, but also in terms of the progression of cardiological pathology.

Nevertheless, to date, questions remain open about the effect of affective spectrum disorders on the neuropeptide-cytokine status of the immune system in patients with chronic coronary heart disease, as well as in what range these changes will be traced in painful and pain-free myocardial ischemia. The obtained data will contribute to the disclosure of additional links of pathogenesis in the atherosclerotic process at the level of neuroimmune interactions, which will allow objectifying the expediency of the use of in the therapy of patients with coronary heart disease and anxiety-depressive disorders, not only standard cardiotropic drugs, but also psychotropic drugs in combination with psychotherapeutic treatment.

In this regard, the purpose of this study was to assess the effect of the severity of anxiety-depressive disorders on the neuropeptide-cytokine status of the immune system in patients with chronic coronary artery disease in various clinical variants of its course, as well as a comparative characteristic of the degree of these changes in pain and pain-free myocardial ischemia.

MATERIALS AND METHODS

A clinical examination was conducted of 90 patients (men) aged 45 to 58 years, the average age was (51.0±6.4) years. All subjects were represented by patients with a chronic form of coronary artery disease, occurring with painful and pain-free episodes of angina pectoris (I25 according to ICD-10) in comorbidity with anxiety-depressive disorders (41.2 according to ICD-10) of varying severity. The duration of observation of patients was 22 ± 7.3 days.

To solve the tasks set out in this work, groups of comorbid patients with anxiety-depressive disorders were formed:

1st (n = 36) – patients with chronic coronary artery disease occurring against the background of moderate anxiety and depressive disorders; 2nd (n = 34) – subjects with chronic coronary artery disease and mild anxiety and depressive disorders; 3rd (n = 20) – patients with chronic coronary heart disease without anxiety-depressive disorders; 4th (n = 22) – control (healthy individuals).

The exclusion criteria were patients with an active inflammatory process, oncological diseases and diseases of the immune system. In order to study the degree of influence of the severity of anxiety-depressive disorders on the state of the neuropeptide-cytokine status of the immune system in various variants of the course of chronic coronary heart disease, a clinical and laboratory study was conducted. In the examination groups, the state of the psychophysiological status, the level of autonomic regulation were studied, the function of the cardiovascular system and the indicators of the content of pro-inflammatory and anti-inflammatory cytokines in the peripheral blood were evaluated.

Psychological and psychophysiological processes were investigated using a standardized multifactorial personality study (SMIL), which is an adaptive version of the Minnesota Multidisciplinary Personality Questionnaire (MMPI), the 8-color Lusher test, the Spielberger–Hanin self-assessment scales of reactive and personal anxiety.

The indicators of the following SMIL test scales were analyzed: HS (hypochondriac fixation), D (propensity to depressive reactions), HY (propensity to hysteroid reactions), PD (psychopathic deviations), PA (propensity to paranoid reactions), RT (propensity to psychoasthenic reactions). The indicators of the following SMIL test scales were analyzed: HS (hypochondriac fixation), D (propensity to depressive reactions), HY (propensity to hysteroid reactions), PD (psychopathic deviations), PA (propensity to paranoid reactions), RT (propensity to psychoasthenic reactions).

The Lusher test parameters were used: LrSTR (presence of a stressful state), LrTR ((anxiety), Lr85 (concentricity/eccentricity), LrNO-1 (deviation from the autogenic norm), Rp-1 (deviation from the general norm), LRLICH (balance of personal properties), LrVNS (vegetative index characterizing the balance of the autonomic nervous system). The presence of chronic coronary heart disease was verified in stationary conditions by examining the cardiovascular system using objective data (complaints, anamnesis) and instrumental research methods (ECG, daily monitoring of ECG with load tests, EchoCG). To assess the function of the cardiovascular system in coronary heart disease in this work, the indicators of daily ECG monitoring were evaluated.

A standard arrangement of electrodes on the chest was used in order to obtain modified chest leads V1 and V5. Subsequent analysis of the results made it possible to identify the nature of rhythm and conduction disturbances, transient decrease in the S-T segment, daily circadian heart rate variability. The following indicators were evaluated: the number, duration of painful and pain-free angina attacks, the depth of ST-segment depression, heart rate at the beginning of ischemic episodes. Horizontal or descending depression was considered ischemic ECG changes of the ST segment by 1.0-1.5 mm or more, the rise of the ST segment by 2 mm, as well as the transient inversion of the T-wave.

In all groups of inpatient examination, the presence of painful and pain-free episodes of angina pectoris was found, among which were: in the 1st group of patients, the painful form of coronary artery disease in 44% of the examined (n = 17), the pain-free form of coronary artery disease was established in 56% of patients (n = 19); in the 2nd group of patients, the painful form of coronary heart disease was detected in 52% of the examined (n = 18), the painless form of coronary heart disease – in 48% (n = 16); in the 3rd group, the painful form of coronary heart

disease was confirmed in 37% of the examined (n = 8), the painless form CHD – in 63% of patients (n = 12). In all groups, painful and pain-free episodes of myocardial ischemia according to their equivalent, according to the accepted classification of the Canadian Society of Cardiology, they corresponded to the I-II functional class of angina pectoris.

The state of the suprasedgmental apparatus of the ANS was assessed by determining the level of the opioid peptide from the propiomelanocortin group in the peripheral blood – beta-endorphin with the use of foreign BioSource International test systems (USA, California). The sensitivity of the method was 0.04-0.06 pg/ml. The cytokine status of the immune system was studied using test systems of domestic and foreign production to determine pro-inflammatory (TNF α , IL-1 β , IL-6) and anti-inflammatory (IL-4, IL-10) cytokines in the blood serum of patients by enzyme immunoassay. We used BioSource test systems International (USA, California) for the determination of IL-1 β , IL-4 and firms in blood serum ProCon (Saint Petersburg) – TNF α , IL-6, IL-10. The sensitivity of test systems for the determination of cytokines is 2 pg/ml, β -endorphin is 0.04-0.06 pg/ml.

Mathematical data processing was carried out on an IBM-compatible personal computer. The electronic database was created in the Microsoft Excel 2007 software environment, statistical analysis was performed using the Statistica for Windows application software package 6.0 (StatSoft, USA). The compliance of the studied samples with the law of normal distribution was preliminarily evaluated. The arithmetic mean and its standard deviation were determined (M±SD), 95% is the confidence interval for the mean (M±m).

RESULTS

Mental and psychophysiological status The individual personality characteristics studied by us with the help of the SMIL test showed that the subjects of the 1st group had a more significant increase in the values on the scales of the neurotic triad D, NS, HY, as well as the scales PD, RA and Rt, which indicates a higher depressive state in these patients compared to patients in group 2 (p < 0.05). According to the 8-color Lusher test in group 1, in relation to patients in group 2, the most significant differences were observed in terms of stress, anxiety, concentricity/eccentricity, vegetative index and deviation from the general norm (p < 0.05). When analyzing the scales of the Spielberger–Hanin test, it was found that in patients Group 1 has increased reactive anxiety, which manifested itself in the form of persistent tension, anxiety, attention disorders and anxiety (p < 0.05). Personal anxiety in these patients was characterized by a tendency to perceive a large range of situations as threatening, dangerous and directly correlated with the presence of neurotic conflict, emotional and neurotic breakdowns (p < 0.05).

In group 2, reactive and personal anxiety was manifested by mild anxiety, tension, less tendency to worry and greater resistance to the effects of stressful social factors.

In the 3rd group, there are no significant deviations from the main indicators on the test scales SMIL, 8-color Lusher test, reactive and personal anxiety according to the Spielberger–Khanin test were not detected, which significantly differed from similar indicators of the 1st and 2nd groups of subjects (p < 0.05).

Thus, the revealed changes in the mental and psychophysiological status in the 1st group of subjects indicate the presence of persistent (moderate) depressive reactions, stress, psychopathic and psychasthenic manifestations of personality, as well as instability of vegetative regulation in the form of sympathicotonic type (ergotropic tone) of vegetative influences. In addition, the Spielberger–Khanin test showed that in the group of these subjects there are reactive and personal anxiety, which we regarded as moderate.

Assessment of the function of the cardiovascular system

After daily ECG monitoring in the groups of subjects, the following results were obtained:

– in patients with chronic coronary heart disease and moderate anxiety-depressive disorders, the number of painful and pain-free episodes of myocardial ischemia per day when walking, as well as against the background of low physical exertion (ladder test) significantly exceeded similar indicators in the 2nd and 3rd groups of subjects (p < 0.05). The duration of painful and pain-free episodes of

myocardial ischemia in such patients also significantly exceeded similar indicators of patients groups 2 and 3 ($p < 0.05$);

– in patients with chronic coronary heart disease and mild anxiety-depressive disorders, the number of painful and pain-free episodes of myocardial ischemia per day, as well as their duration, were significantly higher than the existing changes than in the group of subjects without anxiety-depressive disorders ($p < 0.05$).

From the above, it should be concluded that patients with chronic coronary heart disease and moderate anxiety-depressive disorders have a greater number of pain and pain-free episodes of myocardial ischemia, which became longer in duration and were provoked by less physical exertion than in groups of other patients.

The state of the suprasedgmental area of the VNS

When analyzing the level of β -endorphin in peripheral blood in the examination groups, we revealed a significantly significant decrease in this indicator in the 1st group of patients in relation to the 2nd ($p < 0.05$) and 3rd ($p < 0.05$) groups. A significant decrease in β -endorphin was also found in patients in group 2 in relation to the subjects of group 3 ($p < 0.05$).

In addition, there was an increase in the level of β -endorphin b in the groups of patients with chronic coronary artery disease, occurring with pain-free episodes of angina pectoris, in relation to the subjects with chronic coronary artery disease and pain syndrome ($p < 0.05$).

Thus, a direct pathological effect of the severity of anxiety-depressive disorders on the level of β -endorphin in the form of suppression of its activity on the periphery. Increasing the level of content β -endorphin in subjects with pain-free myocardial ischemia indicates, most likely, about a compensatory reaction in the form of activation of the suprasedgmental region of the ANS, due to a more unfavorable prognostic course of this pathology.

The state of immune regulation

All indicators of cytokines of the pro-inflammatory and anti-inflammatory spectrum in the examination groups varied widely. Thus,

it was found that in patients with chronic coronary heart disease, occurring with moderate anxiety-depressive disorders, there is an increase in indicators reflecting the activity of inflammation – TNF α , IL-1 β , IL-6 ($p < 0.05$), suppression of IL-4, IL-10 ($p < 0.05$) in relation to the examined others groups.

In addition, the authors found that in patients with chronic coronary artery disease and pain-free episodes of myocardial ischemia, there is a more significant increase in the activity of TNF α , IL-1 β , IL-6 and suppression of IL-4 and IL-10 than in the painful form of angina pectoris ($p < 0.05$).

The results of the clinical and laboratory examination allow us to summarize that in patients with chronic IHD, anxiety-depressive disorders have a direct pathological effect on the cytokine status of the immune system, and these changes directly correlate with the severity of affective spectrum disorders.

The revealed changes at the level of the cytokine pool of the immune system in pain-free myocardial ischemia in this case indicate a more unfavorable course in the atherosclerotic process in such patients.

CONCLUSIONS

1. The influence of the severity of anxiety-depressive disorders on the clinical course of the chronic form of coronary heart disease was noted. Thus, in patients with coronary heart disease and anxiety-depressive disorders of a moderate nature, a greater number of painful and pain-free episodes of angina pectoris were found, which became longer in duration and were provoked by less physical exertion.

2. The direct pathological effect of anxiety-depressive spectrum disorders on neuroimmune processes was revealed: decrease in the level of β -endorphin; increase proinflammatory cytokines (TNF α , IL-1 β , IL-6) and inhibition of anti-inflammatory cytokines (IL-4, IL-10) spectrum.

3. There was a regulatory imbalance at the level of the neuropeptide-cytokine link of the immune system in pain-free myocardial ischemia, which indicates a more unfavorable prognostic course of this pathology.

References/Список литературы/Iqtiboslar

1. Абдувакилов Ж., Ризаев Ж. Биохимические маркеры соединительной ткани у больных хроническим воспалительным пародонтитом на фоне метаболического синдрома //Stomatologiya. – 2018. – Т. 1. – №. 1 (70). – С. 11-14.
2. Alisherovna, K. M., & Xudoyberdiyevich, G. X. FEATURES OF HEART DAMAGE IN PATIENTS WITH VIRAL CIRRHOSIS OF THE LIVER. Alisherovna, K. M., & Xudoyberdiyevich, G. X. FEATURES OF HEART DAMAGE IN PATIENTS WITH VIRAL CIRRHOSIS OF THE LIVER.
3. Alisherovna, K. M., Erkinovna, K. Z., Jamshedovna, K. D., & Toshtemirovna, E. M. M. (2022). STUDY OF QUALITY OF LIFE INDICATORS IN PATIENTS WITH CORONARY HEART DISEASE USING THE SF-36 QUESTIONNAIRE. Web of Scientist: International Scientific Research Journal, 3(5), 558-564.
4. Alisherovna, K. M., Tatlibayevich, Y. S., Toshtemirovna, E. M. M., & Nizamitdinovich, H. S. (2021). Diagnostic Significance Daily Monitoring of Blood Pressure in Young Women (Under 40 Years Old) with Arterial Hypertension. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES, 2(5), 461-465.
5. Buribayevich, N. M. (2022). Treatment of Chronic Heart Failure in Patients with Type 2 Diabetes Mellitus. CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES, 3(1), 183-186.
6. Erkinovna, K. Z., Davranovna, M. K., Toshtemirovna, E. M. M., & Xudoyberdiyevich, G. X. (2022). CORRECTION OF COMPLICATIONS IN CHRONIC HEART FAILURE DEPENDING ON THE FUNCTIONAL STATE OF THE KIDNEYS. Web of Scientist: International Scientific Research Journal, 3(5), 565-575.
7. Makhmudova, K. D., & Gaffarov, H. H. (2021, February). STUDYING THE LIVER FUNCTION IN BURN RECONVALESCENTS. In Archive of Conferences (Vol. 15, No. 1, pp. 208-210).
8. Toshtemirovna, E. M. M., Alisherovna, K. M., Totlibayevich, Y. S., & Muxtorovna, E. M. (2022). HEARTS IN RHEUMATOID ARTHRITIS: THE RELATIONSHIP WITH IMMUNOLOGICAL DISORDERS. Spectrum Journal of Innovation, Reforms and Development, 4, 34-41.
9. Toshtemirovna, E. M. M., Alisherovna, K. M., Totlibayevich, Y. S., & Duskobilovich, B. S. (2022). THE VALUE OF XANTHINE IN CHRONIC HEART FAILURE. Spectrum Journal of Innovation, Reforms and Development, 4, 24-29.
10. Toshtemirovna, E. M. M., Nizamitdinovich, K. S., Tadjiyevich, X. A., & Xudoyberdiyevich, G. X. (2022). ASSESSMENT OF RENAL DYSFUNCTION IN PATIENTS WITH CHRONIC HEART FAILURE.
11. Xaydarov, S. N., & Normatov, M. B. (2021). DETERMINATION OF IRON DEFICIENCY ANEMIA AT THE PREGNANCY PERIOD. Scientific progress, 2(4), 325-327.
12. Ziyadullaev S. et al. The effect of budesonide on the quality of life in patients with bronchial asthma //European Journal of Molecular & Clinical Medicine. – 2020. – Т. 7. – №. 2. – С. 1760-1766.
13. Yarmatov, S. T. (2021). YURAK ISHEMIK KASALLIGI VA BACHADON MIOMASI BO'LGAN BEMORLARNI DAVOLASHDA ANTIKOUGULYANT VA ANTITROMBOSITAR TERAPIYANI O'TKAZISH BO'YICHA KLINIK KUZATUVNI OLIB BORISH. Scientific progress, 2(3), 792-797.

14. Yarmukhamedova, S. (2020). SURUNKALI GLOMERULONEFRIT BILAN OG 'RIGAN BEMORLARDA ARTERIAL QON BOSIMINING SUTKALIK MONITORING KO 'RSATKICHLARINI BAXOLASH. Журнал кардиореспираторных исследований, 1(1), 103-108.
15. Норматов, М. Б. (2022). EFFICACY OF AMLODIPINE IN ARTERIAL HYPERTENSION COMBINED WITH TYPE 2 DIABETES MELLITUS. Журнал кардиореспираторных исследований, 3(1).
16. Хайдарова, З. (2021). ЭНТРОПИЯ И НАРУШЕНИЯ СЕРДЕЧНОГО РИТМА У БОЛЬНЫХ, ПЕРЕНЕСШИХ ИНФАРКТ МИОКАРДА. Журнал кардиореспираторных исследований, 2(4), 59-62.
17. ШОДИКУЛОВА, Г. З., ЭРГАШОВА, М. М., КУРБАНОВА, З. П., & УМАРОВ, И. Д. (2022). REVMATOID ARTRIT VA IKKILAMCHI OSTEOARTROZ BILAN KASALLANGAN AYOLLARDA KARDIOVASKULYAR XAVFINI VANOLASH. ЖУРНАЛ БИОМЕДИЦИНЫ И ПРАКТИКИ, 7(1).
18. Эргашова, М. М., & Шодикулова, Г. З. (2021). РЕВМАТОИД АРТРИТ ВА ИККИЛАМЧИ ОСТЕОАРТРОЗ КАСАЛЛИГИ БОР БЕМОРЛАРДА ЮРАК ГЕМОДИНАМИКАСИНИНГ ЎЗИГА ХОС ХУСУСИЯТЛАРИ. ЖУРНАЛ БИОМЕДИЦИНЫ И ПРАКТИКИ, 6(1).
19. Ярмухаммедова, С. (2020). ОЦЕНКА ПРИЗНАКОВ ДИАСТОЛИЧЕСКОЙ ДИСФУНКЦИИ ПРАВОГО ЖЕЛУДОЧКА У БОЛЬНЫХ С АРТЕРИАЛЬНОЙ ГИПЕРТОНИЕЙ. Журнал кардиореспираторных исследований, 1(2), 88-92.
20. Ярмухаммедова, С., Гаффоров, Х., & Ярматов, С. (2020). JIGAR SIRROZIDA YURAKNING SISTOLIK VA DIASTOLIK DISFUNKTSIYASINING ANAMIYATI. Журнал кардиореспираторных исследований, 1(2), 85-87.