

RESULTS AND SURVEYS ABOUT AWARENESS OF THE MITRAL VALVE PROLAPSE

J.A. Kholmatov.

O.O. Askarov

Assitant of the Department of Pharmacology, Tashkent Medical
Academy, Uzbekistan

B.A. Abdurakhimov

Assitant of the School of Public Health, Tashkent Medical Academy,
Uzbekistan

Janani Velu

Student of foreign faculty, Tashkent medical academy, Uzbekistan

Email: jasurbekholmatov01@gmail.com

<https://doi.org/10.5281/zenodo.8008706>

ABSTRACT

Mitral valve prolapse continues to arouse considerable interest because of its worldwide prevalence, lack of unanimity in diagnostic criteria, and association with such potentially serious complications as angina-like chest pain, cardiac arrhythmias, sudden death, progressive mitral regurgitation, cerebral embolism, and infective endocarditis. This review includes a discussion of the prevalence of mitral valve prolapse around the world, a critical review of the diagnostic criteria, and a discussion of the pathophysiology of the important complications, with special emphasis on cardiac arrhythmias.

KEYWORDS: Mitral valve prolapse; cardiac surgery; degenerative mitral regurgitation; echocardiography; heart valves; mitral regurgitation.

INTRODUCTION

Mitral valve prolapses (MVP) is a common valve pathology with a spectrum of disease from isolated prolapse to myxomatous, multi-scallop Barlow's disease. The main complications relate to progression of mitral regurgitation, endocarditis, sudden death, and stroke. The timing of intervention in patients with asymptomatic severe mitral regurgitation is controversial. Areas covered: This article reviews the pathophysiology, genetics, clinical features, diagnostic imaging, complications, long-term outcomes, and indications for intervention in MVP [1]. Mitral valve prolapses (MVP) is the most common primary valvular abnormality, associated with various degrees of incompetent function and sequelae, including heart failure and sudden cardiac death. Recent improvements in echocardiographic techniques and new insights into mitral valve anatomy and physiology have rendered the diagnosis of this condition more accurate and reliable. Here we review the genetic etiology, clinical significance, diagnosis, and treatment options for MVP patients [2]. Mitral valve prolapses -Anatomic includes patients with a wide spectrum of mitral valve abnormalities from mild to severe. Symptoms, physical findings and laboratory abnormalities in these patients are directly related to mitral valve dysfunction and progressive mitral regurgitation. Complications related to abnormal mitral valve include infective endocarditis, thromboembolic events, cardiac arrhythmias, progressive mitral regurgitation, rupture of chordae tendineae and congestive heart failure. Individuals with thick mitral leaflets and mitral systolic murmur are at higher risk of developing complications [3]. Prophylaxis for endocarditis and closeness of follow-up should be related to the occurrence of the

independent risk factors for complications of mitral prolapse (presence of mitral regurgitation, male gender, and age over 45 years), whereas active management and close observation are needed for severe mitral regurgitation and advanced ventricular arrhythmias [4]. Mitral valve prolapse is a common condition that is a risk factor for mitral regurgitation, congestive heart failure, arrhythmia, and endocarditis. Myxomatous degeneration is the most common cause of mitral prolapse in the United States and Europe, and progression of myxomatous mitral prolapse is the most common cause of mitral regurgitation that requires surgical treatment. Myxomatous degeneration appears to have genetic etiology. The genetics of myxomatous degeneration is complex and not fully worked out; it appears to be heterogeneous with multi-gene, multi-chromosomal autosomal dominance with incomplete penetrance [5,11,12]. major complications such as disabling angina-like chest pains, progressive mitral regurgitation, infective endocarditis, thromboembolism, serious arrhythmias, and sudden death may occur. Unless these serious complications occur, most of the patients with mitral valve prolapse need no treatment other than reassurance, including those with atypical chest pain or palpitation unconfirmed by objective data. Therapy with a beta-blocker for disabling chest pain and/or arrhythmias and antiplatelet therapy for cerebral embolic events may be indicated. In occasional patients with significant mitral regurgitation surgery may be necessary [6,7,8,9,10].

MATERIAL AND METHOD

I choose both countries India and Uzbekistan. India's population in 2021 as per world bank is 1.39 billion. Being the world's second-most-populous country and one of its fastest-growing economies, India experiences both challenges and opportunities in context of public health. India is a hub for [pharmaceutical](#) and [biotechnology](#) industries; world-class scientists, clinical trials and hospitals yet country faces daunting public health challenges like child undernutrition, high rates of neonatal and maternal mortality, growth in noncommunicable diseases, high rates of road traffic accidents and other health related issues. The city of Tashkent was chosen as the capital of the economically developed Republic of Uzbekistan for research. As of December 15, 2020, the population of the Republic of Uzbekistan was 34,550,623. Tashkent is an economically developed "industrial center". Tashkent has large treatment and prevention, specialized, diagnostic and private medical institutions. The city has a population of 2,510,800 in 2019 and a population density of 7,380 people per 1 km². At the national level, this figure is on average 100 times higher than in other regions [13,14,15,16]. I considered the citizens of India through online with the help of social media like Telegram, WhatsApp, etc., Given that the level of medical care in the capital and the level of health literacy of the population should be high, we selected the population of Tashkent for the study. Thus, in terms of key demographic, social and economic characteristics, Tashkent is one of the most industrialized regions of Uzbekistan, and the scientific results based on it are areas with an epidemic situation comparable in terms of Mitral valve prolapse and the level of development of can be used for medical care. This work is a complex organizational, socio-hygienic and medical-statistical research [17,18,19,20,21,22]. It provided for the solution of a number of tasks that would allow developing recommendations for nurses on the implementation of an innovative direction for the prevention of Mitral valve prolapse among the population. The choice of research objects was determined in accordance with the tasks and stages of work. The search for literary sources was carried out using the bibliographic databases Web of Science, Scopus, DBLP, Medline. When selecting sources, they paid attention

to experimental articles, literary reviews, the number of their citations over the past year [23,24,25,26].

RESULT

The survey was conducted using information and online technologies. The chart below shows the results of the survey.

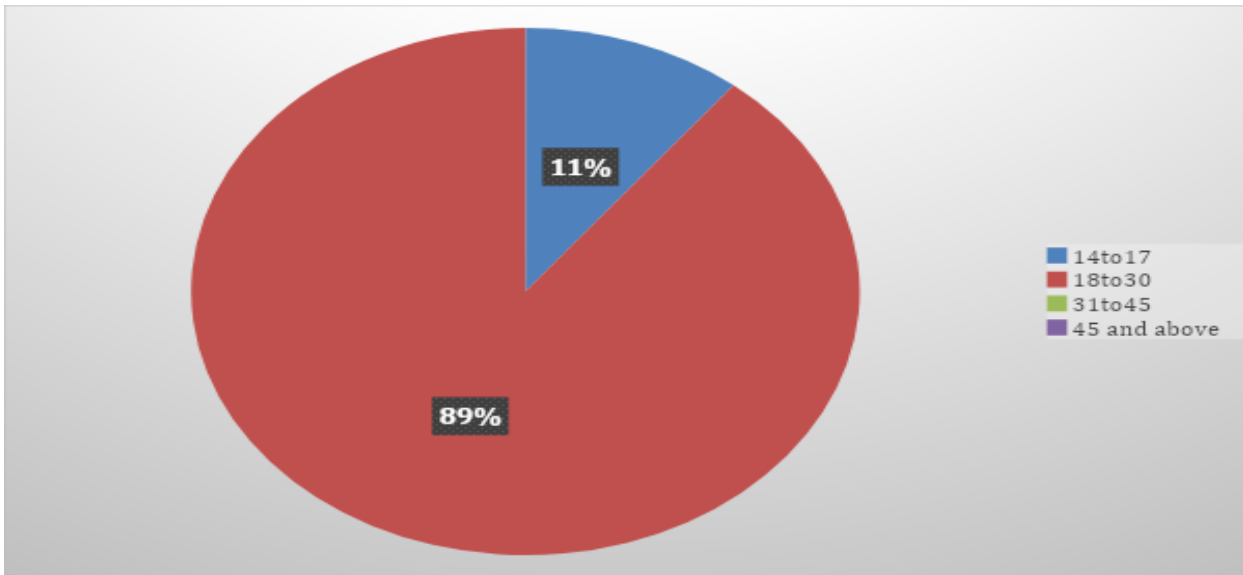


DIAGRAM No:1 Age of participants

The age of the participants was from 14-17 years old (10.7%), from 18-30 years old (89.3%). So this proves that most of the young people responded my survey.

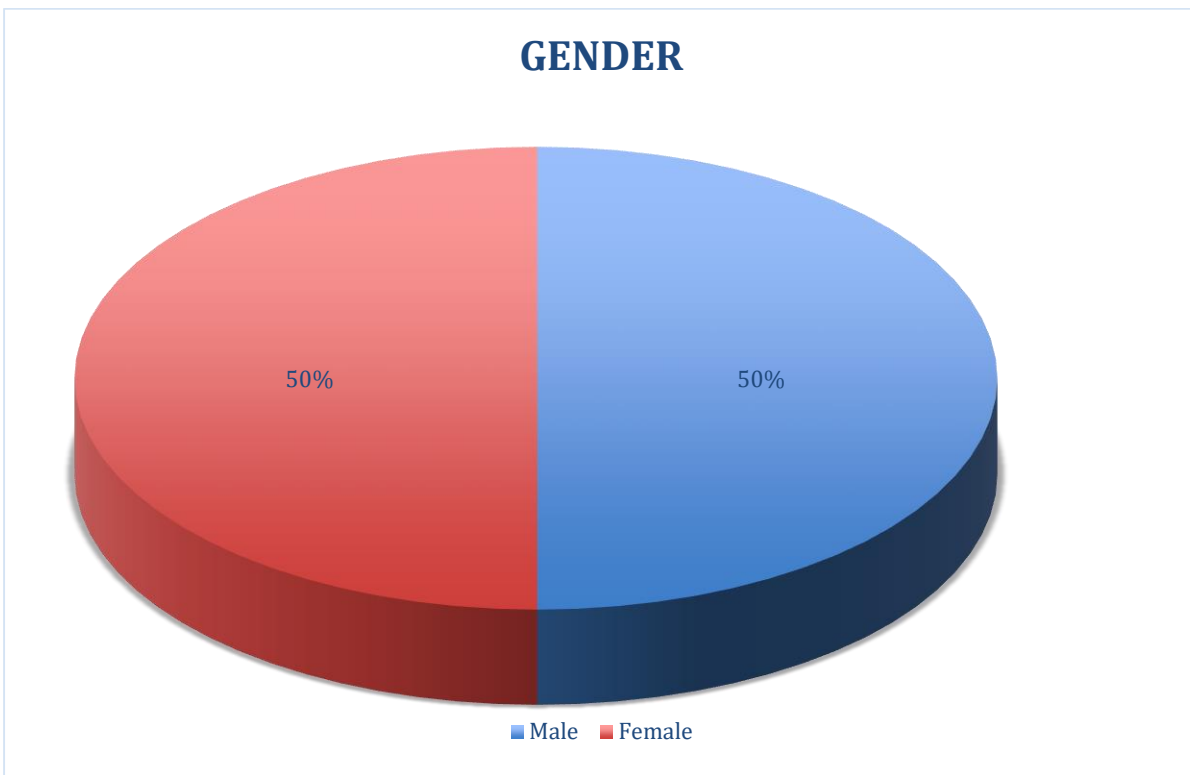


DIAGRAM No:2 GENDER



50% of the people who attended my survey was male. 50% of the people who attended my survey was female.

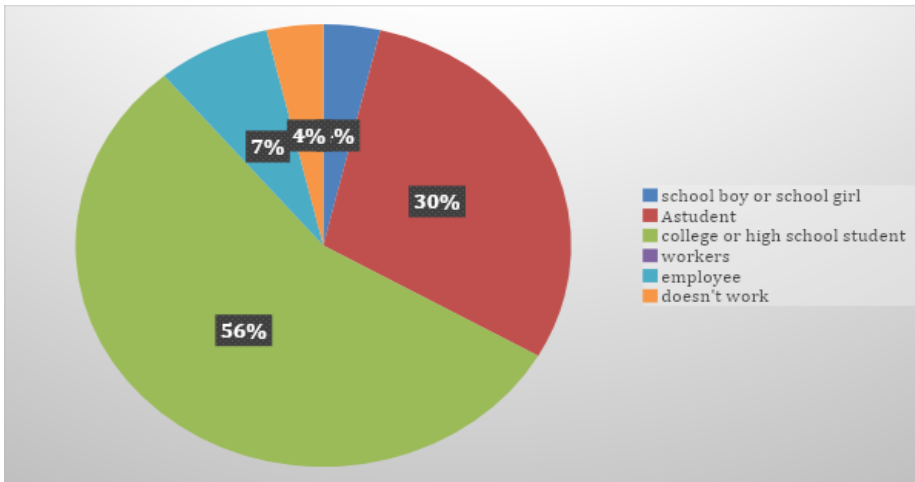


DIAGRAM No.3 At the moment you are

The participants are school boy/school girl (3.7%), Students (29.6%), college or high school students (55.6%), employee (7.4%), doesn't work (3.7%).

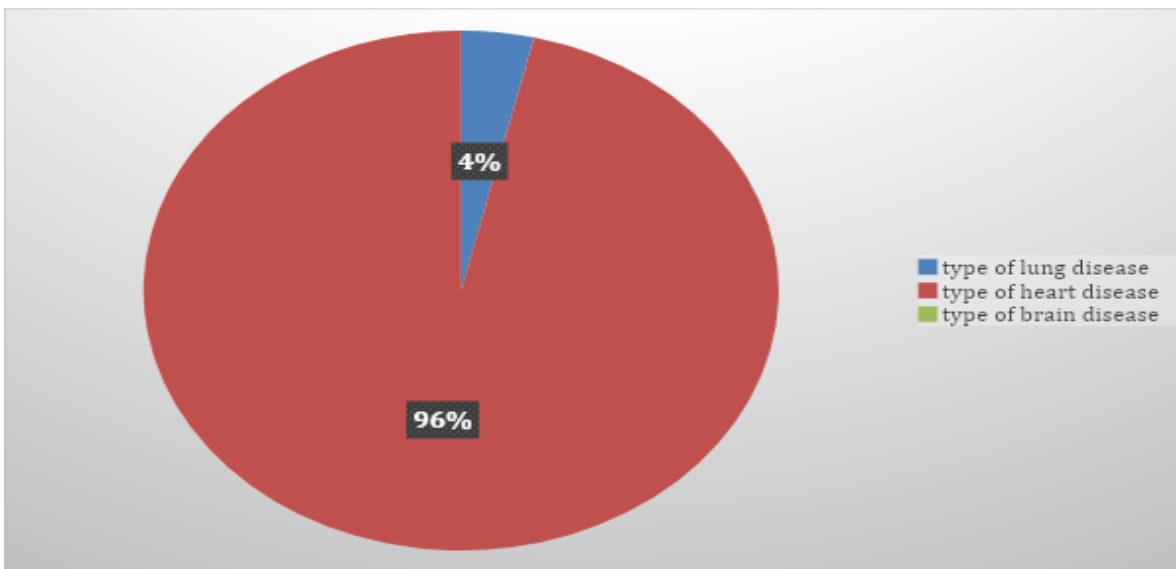


DIAGRAM No : 4

What does mean mitral valve prolapse?

96.3% people chose correct answer

Most of my respondents correctly said the type of disease so this shows that they are aware of this disease



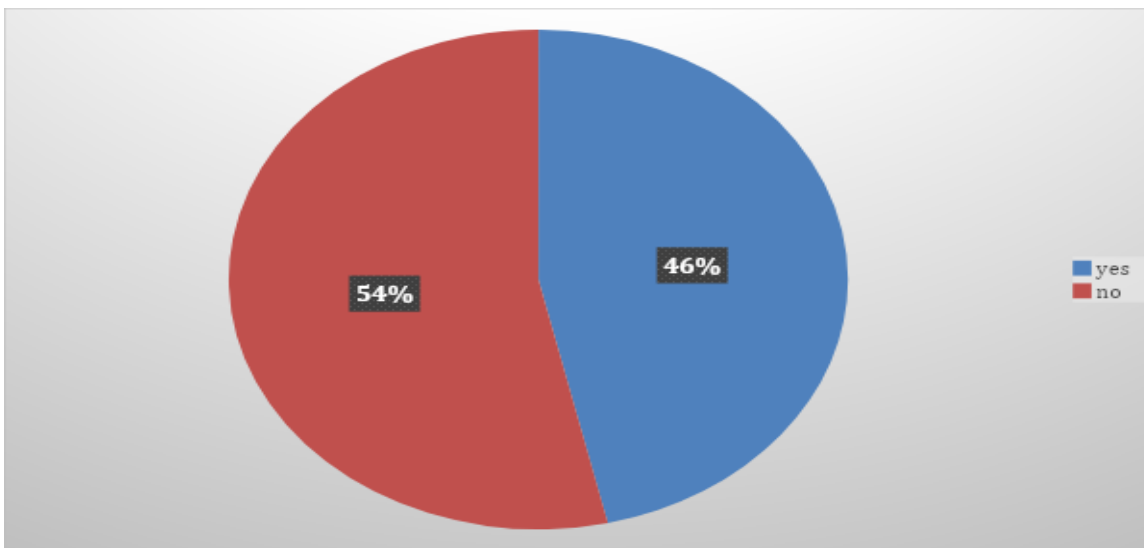


DIAGRAM No:5

5. Mitral valve prolapse is it genetically transferred disease?

53.6% people chose correct answer

So, from this response it proves that nearly half of the participants (46.4%) thinks it's not genetically transferred disease.

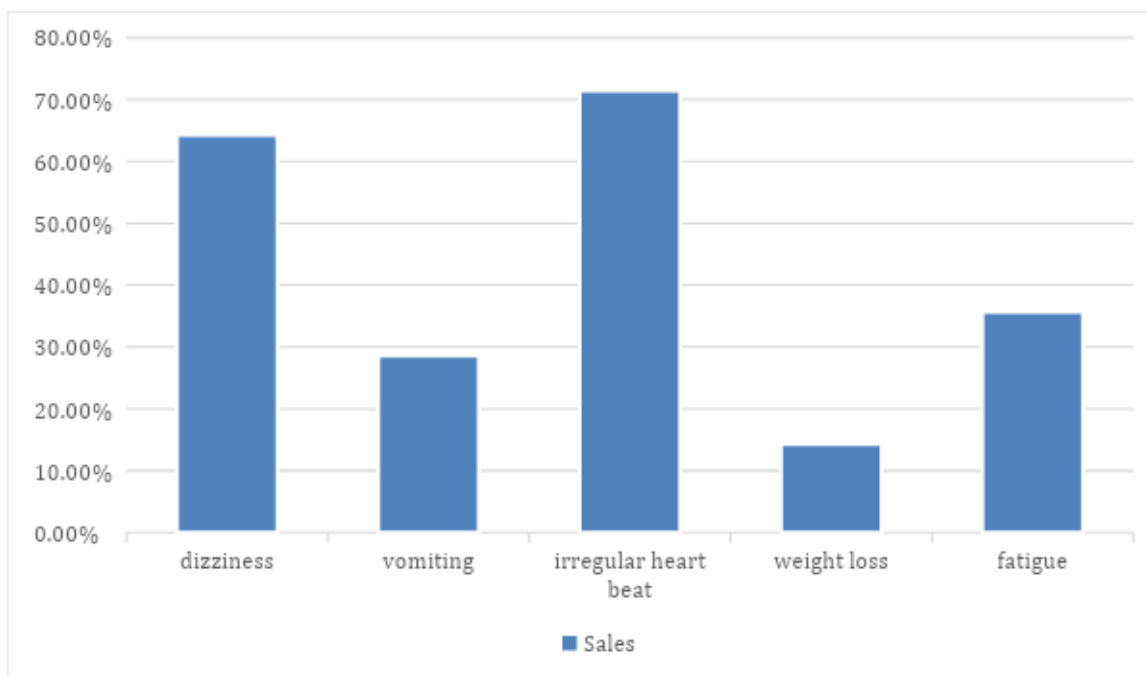


DIAGRAM No:6

6. Normal symptoms of mitral valve prolapse?

The people who chose correct answer were dizziness (64.3%) and irregular heartbeat (71.4%)

Many respondents were aware that if a person gets a heart-related disease, they know what kind of symptoms they might get. If a person is suffering continuously with these symptoms, they should obviously consult a cardiologist.

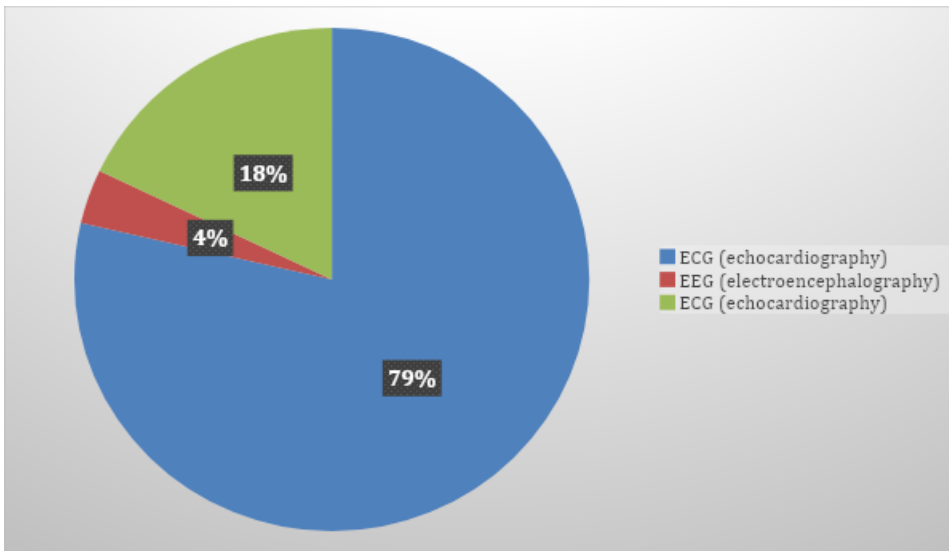


DIAGRAM No :7

7. Diagnosing method for Mitral valve prolapse?

78.6% people chose correct answer

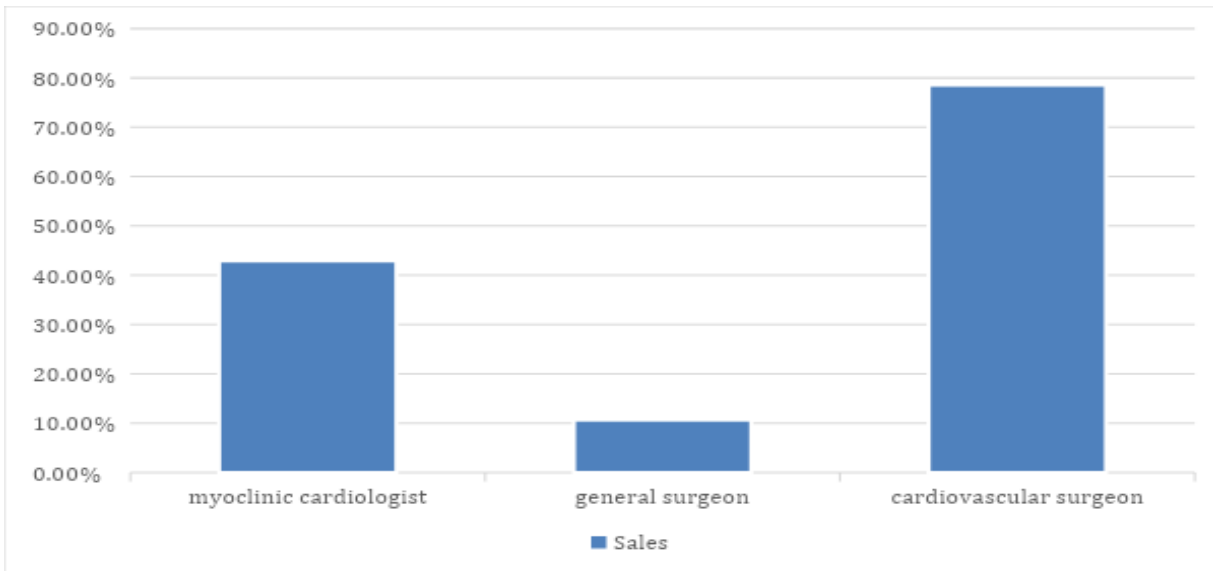


DIAGRAM No:8

8. Which doctors treat mitral valve prolapse?

People who chose correct answer were myoclinic cardiologist (42.9%), cardiovascular surgeon (78.6%).



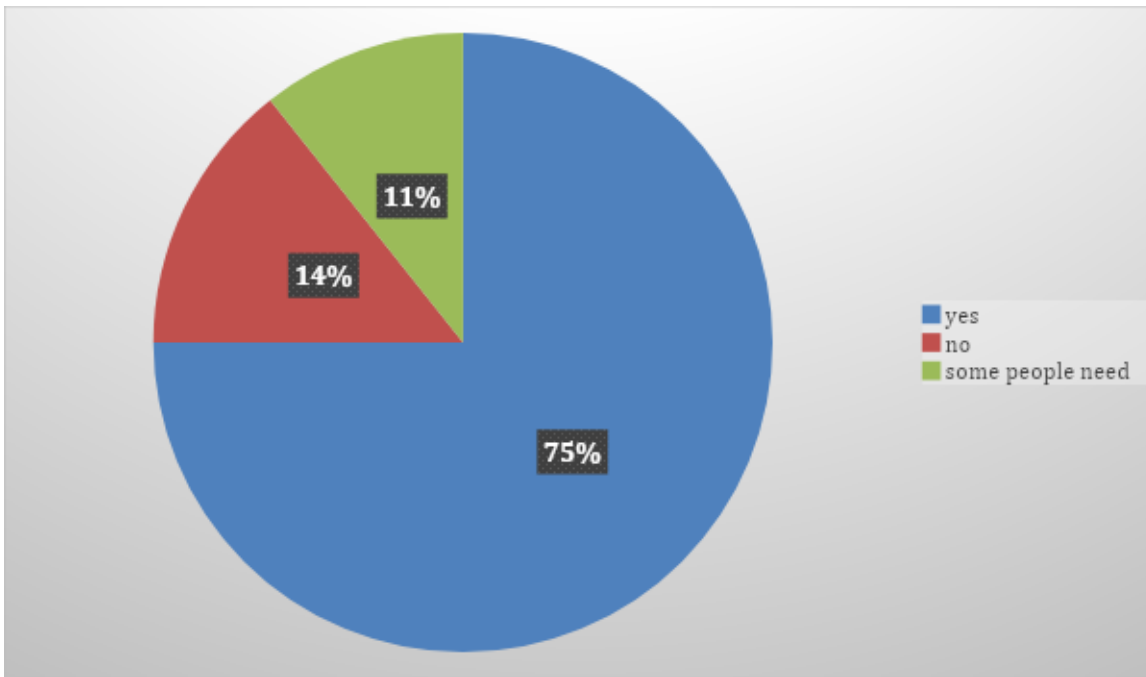


DIAGRAM No :9

9.Can Mitral valve prolapse. Patients need treatment?

10.7% people chose correct answer

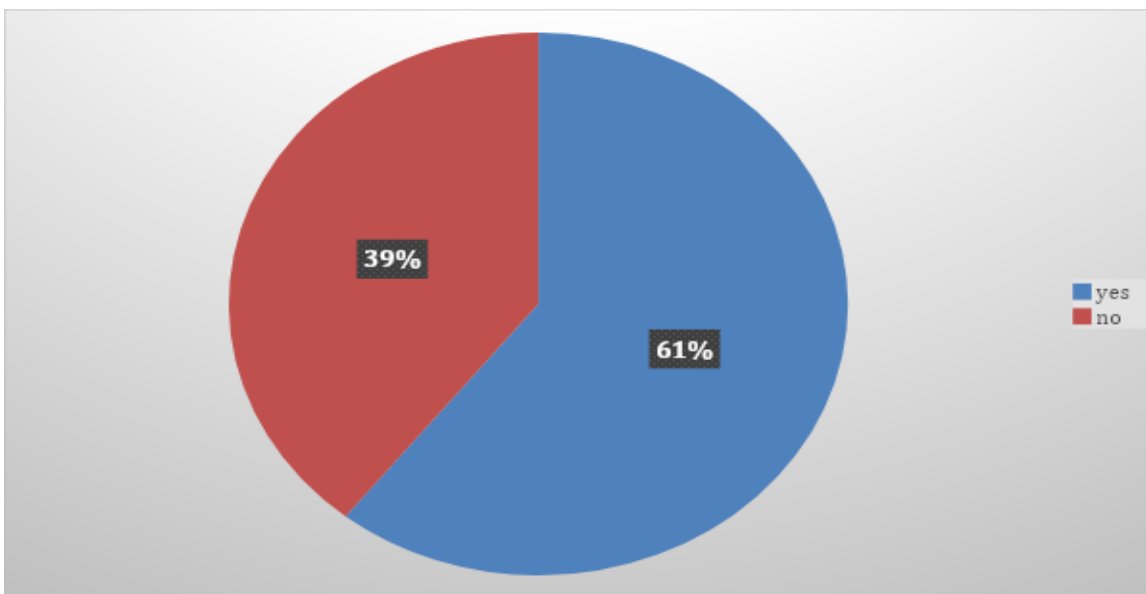


DIAGRAM No:10

10.Can you live a normal life with Mitral valve prolapse?

60.7% people chose correct answer



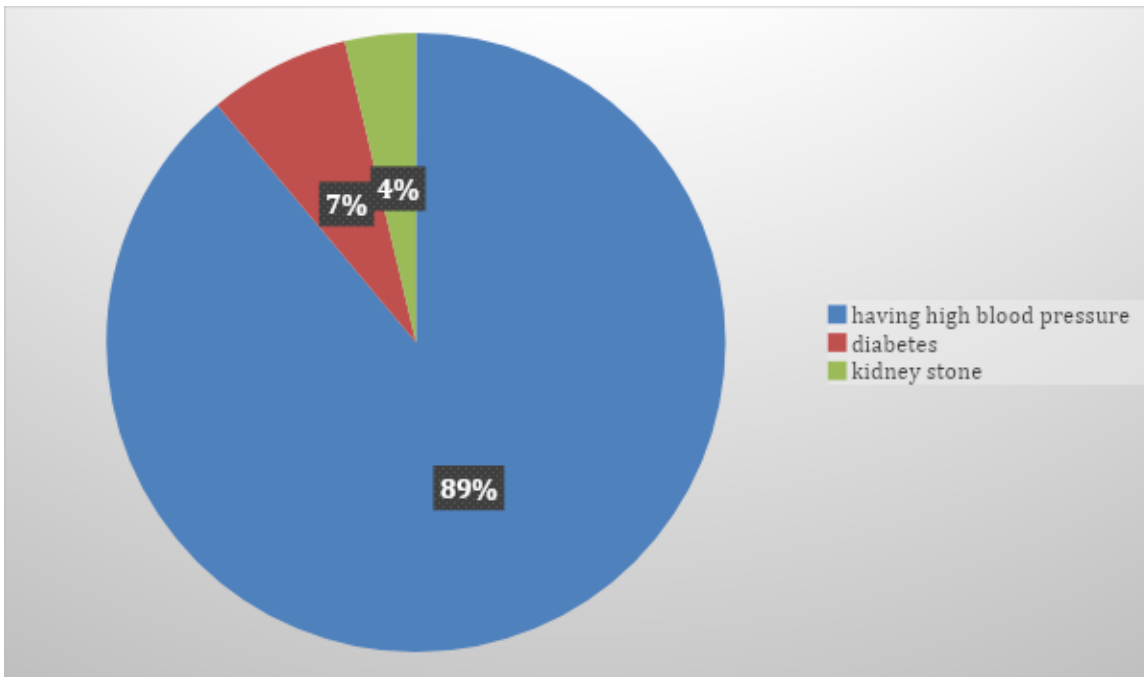


DIAGRAM No: 11

11.What can make Mitral valve prolapse worse?

88.9% people chose correct answer

In this survey we can see most of the people knew about the mitral valve prolapse is heart related disease 93.6%. Mitral valve prolapse is a type of heart valve disease that affects the valve between the left heart chambers. The flaps (leaflets) of the mitral valve are floppy. They bulge backward (prolapse) like a parachute into the heart's left upper chamber as the heart squeezes. But nearly half of the people thought that this is not transferred from genetically but it is genetically transferred disease.

MVP can be sporadic or familial, demonstrating autosomal dominant and X-linked inheritance. Three different loci on chromosomes 16, 11 and 13 have been found to be linked to MVP, but no specific gene has been described.

Some people thought that mitral valve prolapse cause fatigue 35.7% and vomiting 28.6% but it's cause irregular heartbeat 71.4%, dizziness 64.3%.

Here some people confused with ECG Echocardiograph 78.6% and ECG Electrocardiograph 17.9%.

A standard echocardiogram, also called a transthoracic echocardiogram (TTE), can confirm a diagnosis of mitral valve prolapse and determine its severity. Sometimes, a transesophageal echocardiogram (TTE) may be done to get more-detailed images of the mitral valve[27,28,29,30].

Most of the people aware about which doctor we should prefer for Mitral valve prolapse 78.6%.

Cardiologists and cardiac surgeons who specialize in valvular heart disease evaluate each patient and make a joint decision on the best treatment approach. Treatments may include non-surgical therapies, catheter-based procedures, or surgery. Most of the people thought the person who affected by mitral valve prolapse they should need treatment 75% but actually the person who get affected they can live normal life some of the people only need



the treatments. This is heart related disease so mostly everyone aware about the which thing make it worse.

DISCUSSION

When analyzing the efficiency of knowledge assimilation, the compared options, in contrast to the analysis of minimizing costs, are characterized by greater or lesser, but not equivalent, efficiency. In this regard, it is important to assess the degree of feasibility of the analysis, depending on the level of reliability of the data. The test results were expressed in points. Participants' results were calculated using Microsoft Excel software. The assessment of the effectiveness of the assimilation of knowledge was calculated based on the application of the proposed methodological recommendation in practice. Thus, each participant of the survey, on average, increased his theoretical and practical level of knowledge in the field of mitral valve prolapse and its prevention by almost half.

CONCLUSION

We identified 14 genetic loci that are associated with MVP. Multiple analyses identified candidate genes including two transforming growth factor- β signaling molecules and spectrin β . We present the first PRS for MVP that could eventually aid risk stratification of patients for MVP screening in a clinical setting. These findings advance our understanding of this common valvular heart disease and may reveal novel therapeutic targets for intervention.

We share our experience of surgical repair of mitral valve bileaflet prolapse in pediatric patients. Several surgical methods are considered to be used to repair the MV due to the high complexity of lesions. Anatomic correction or functional correction in our reports almost reaches the same result, while functional correction means simpler operation.

This how-to article provides clinical and useful data to manage athletes with mitral valve prolapse and to distinguish high-risk athletes carrying the features of arrhythmic mitral valve prolapse.

RECOMMENDATION

Eat a heart-healthy diet. Eat a variety of fruits and vegetables. Choose low-fat or fat-free dairy products, poultry, fish, and whole grains. Avoid saturated and trans- fat, and excess salt and sugar.

Maintain a healthy weight. If you are overweight or have obesity, your health care provider might recommend that you lose weight.

Get regular physical activity. Most people with mitral valve prolapse are able to do daily activities and exercise without restrictions. Aim to include about 30 minutes of physical activity, such as brisk walks, into your daily fitness routine. If mitral valve prolapse causes severe regurgitation, your provider may recommend certain exercise limitations.

Manage stress. Getting more exercise, connecting with others and practicing mindfulness are some ways to reduce stress.

Avoid tobacco. If you smoke, quit. Ask your health care provider about resources to help you quit smoking.

References:



1. Althunayyan A, Petersen SE, Lloyd G, Bhattacharyya S. Mitral valve prolapse. *Expert Rev Cardiovasc Ther.* 2019 Jan;17(1):43-51. doi: 10.1080/14779072.2019.1553619. Epub 2018 Dec 3. PMID: 30484338.
<https://pubmed.ncbi.nlm.nih.gov/30484338/>
2. Tessler I, Reshef N, Shpitzen S, Gilon D, Durst R. Mitral valve prolapse: From new mechanisms to diagnostic challenges. *Kardiol Pol.* 2022;80(9):891-896. doi: 10.33963/KP.a2022.0147. Epub 2022 Jun 20. PMID: 35724336.
<https://pubmed.ncbi.nlm.nih.gov/35724336/>
3. Boudoulas H. Mitral valve prolapse: etiology, clinical presentation and neuroendocrine function. *J Heart Valve Dis.* 1992 Nov;1(2):175-88. PMID: 1341625.
<https://pubmed.ncbi.nlm.nih.gov/32201287/>
4. Devereux RB, Kramer-Fox R, Kligfield P. Mitral valve prolapse: causes, clinical manifestations, and management. *Ann Intern Med.* 1989 Aug 15;111(4):305-17. doi: 10.7326/0003-4819-111-4-305. PMID: 2667419.
<https://pubmed.ncbi.nlm.nih.gov/2667419/>
5. Guy TS, Hill AC. Mitral valve prolapse. *Annu Rev Med.* 2012;63:277-92. doi: 10.1146/annurev-med-022811-091602. PMID: 22248324.
<https://pubmed.ncbi.nlm.nih.gov/22248324/>
6. Cheng TO. Mitral valve prolapse. *Dis Mon.* 1987 Sep;33(9):481-534. doi: 10.1016/0011-5029(87)90005-8. PMID: 3308381.
<https://pubmed.ncbi.nlm.nih.gov/3308381/>
7. Masharipova, R., Togaynazarov, S., Pakhrudinova, N., Khasanova, G., & Abdurahimov, B. (2020). The main factors of formation and physical culture in society. *Systematic Reviews in Pharmacy*, 11(12).
8. Маматқулов, Б., & Абдурахимов, Б. А. (2020). Тоғ-кон саноати ишчиларининг саломатлиги ва хавф омилларини бошқаришга тизимли ёндашив. *Тиббиётда янги кун*, 4(32), 162-165.
9. Маматқулов, Б., Аvezова, Г. С., Абдурахимов, Б. А., & Адилова, З. У. (2019). Тоғ-кон саноатидаги ишчилар касалланиши, улар саломатлигига ишлаб чиқариш омилларининг таъсири. *Тиббиётда янги кун*, 4(28), 191-195.
10. Абдурахимов, Б., Хайитов, Ж., Сафаров, Х., & Улмасов, Ж. (2023). ОСОБЕННОСТИ ЗАБОЛЕВАЕМОСТИ РАБОТНИКОВ ПРЕДПРИЯТИЙ МЕДНОЙ ПРОМЫШЛЕННОСТИ.
11. Abdurakhimov, B. A., Khaitov, J. B., Safarov, K. K., Khakberdiev, K. R., Buriboev, E. M., & Ortiqov, B. B. (2022). INTEGRAL ASSESSMENT OF RISK FACTORS AFFECTING THE HEALTH OF EMPLOYEES OF A COPPER PRODUCTION MINING. *Oriental renaissance: Innovative, educational, natural and social sciences*, 2(12), 1442-1449.
12. Абдурахимов, Б. А., Аликулова, Д. Я., & Аvezова, Г. С. (2018). Здоровье работающих горнорудной промышленности. In *EUROPEAN RESEARCH: INNOVATION IN SCIENCE, EDUCATION AND TECHNOLOGY* (pp. 111-112).
13. Abdurakhimov, B. A., Khaitov, J. B., Safarov, K. K., & Ulmasov, J. M. (2023). A SYSTEMATIC APPROACH TO MANAGING THE HEALTH AND RISK FACTORS OF THEIR WORKERS. *Academic research in educational sciences*, 4(2), 209-213.
14. Хакимов З., Джанаев Г., Холматов Ж. ПРОКИНЕТИЧЕСКАЯ АКТИВНОСТЬ НОВОГО ФИТОПРЕПАРАТА «ЛЕСБОХОЛ» // *Eurasian Journal of Medical and Natural Sciences*. – 2022. – Т. 2. – №. 13. – С. 205-209.



15. Khakimov Z. Z. Effect of Derivatives of Glycyrrhetic Acid on the Intensity of Free Radical Processes During Immobilization Stress //Pioneer: Journal of Advanced Research and Scientific Progress. – 2022. – Т. 1. – №. 1. – С. 7-12.
16. Djanaev G. Y. et al. PHARMACOTHERAPEUTIC EFFECTIVENESS OF HERBAL MEDICINE "YAZVANOL" IN THE EXPERIMENTAL INDOMETHACINE GASTROPATY MODEL //World Bulletin of Public Health. – 2023. – Т. 21. – С. 144-147.
17. Olimdjanovich A. O. et al. Studying the Sugar reducing Activity of the Preparation of Dry Extract of Chicory //Texas Journal of Multidisciplinary Studies. – 2023. – Т. 17. – С. 1-5.
18. Kholmatov J., Singh K., Sultanov S. PERSISTENCE OF SMOKING IN YOUTH DESPITE AWARENESS OF IT'S ADVERSE EFFECTS //International Bulletin of Medical Sciences and Clinical Research. – 2023. – Т. 3. – №. 5. – С. 199-207.
19. Джанаев Ф. Ю., Аллаева М. Ж., Холматов Ж. А. ИММОБИЛИЗАЦИОН СТРЕСС ЙЎЛИ БИЛАН ЧАҚИРИЛГАН МЕЪДА ЯРАСИ-ДА ЎСИМЛИКЛАР ҚУРУҚ ЭКСТРАКТИ ЙИЎМАСИНИНГ САМАРАДОРЛИГИНИ ЎРГАНИШ: дис.-“ЎЗБЕКИСТОНДА МИЛЛИЙ ТАДҚИҚОТЛАР: ДАВРИЙ АНЖУМАНЛАР:”, 2022.
20. Юсупович Д. Ф. и др. ИНДОМЕТАЦИН ТАЪСИРИДА РИВОЖЛАНГАН ГАСТРОПАТИЯДА ЛЕСБОХОЛ, МИЗОПРОСТОЛ ВА МУКАГЕННИНГ МЕЪДА ШИЛЛИҚ ҚАВАТИ ҲИМОЯ ТИЗИМИГА ТАЪСИРИНИ ҚИЁСИЙ ЎРГАНИШ. – 2022.
21. Khakimov Z. Z. et al. Gastroprotective effect of compounds of produced from liquorice : дис. – Tibbiyotdagi zamonaviy ilmiy tadqiqotlar, 2022.
22. Abdikhoshimovich K. J. et al. Applications of Physics in Diagnostic Imaging //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 98-107.
23. Аллаева М. Ж., Асқаров О. О., Кдырниязова С. А. The study of hypoglycemic effect of dry extract of chicory //Биология и интегративная медицина. – 2017. – №. 3. – С. 184-191.
24. Djanaev G. Y., Askarov O. O., Sultanov S. A. Phytotherapy of Gastric Ulcer (Literature Review) //Texas Journal of Medical Science. – 2022. – Т. 15. – С. 51-59.
25. Khakimov Z. Z., Djanaev G. Y., Askarov O. O. Study Of the Effect of a Mixture of Extracts of Medicinal Plants on the State of the Gastric Mucosa in Gastropathy Induced by Indomethacin //Eurasian Medical Research Periodical. – 2023. – Т. 19. – С. 90-95.
26. Djanaev G. Y. et al. Pharmacotherapy of Gastropathy (Literature Review) //Texas Journal of Medical Science. – 2023. – Т. 17. – С. 67-76.
27. Шадманов А. К. и др. РОЛЬ ДИСФУНКЦИИ ЭНДОТЕЛИЯ В ПАТОГЕНЕЗЕ ЗАБОЛЕВАНИЙ //Re-health journal. – 2021. – №. 2 (10). – С. 122-129.
28. Шадманов А. К. и др. МАРКЕРЫ НАРУШЕНИЙ ВАЗОМОТОРНОЙ ФУНКЦИИ ЭНДОТЕЛИЯ //Re-health journal. – 2021. – №. 2 (10). – С. 130-133.
29. Аллаева М. Ж. и др. ФАРМАКОЛОГИЧЕСКИЕ СВОЙСТВА СУХОГО ЭКСТРАКТА CONVULVULUS ARVENSIS L. CONVULVULUS ARVENSIS L. ҚУРУҚ ЭКСТРАКТИНИНГ ФАРМАКОЛОГИК ХУСУСИЯТЛАРИ Ташкентская медицинская академия //ЎЗБЕКИСТОН ФАРМАЦЕВТИК ХАБАРНОМАСИ. – С. 70.
30. Djanaev G. Y. et al. Effect of Dry Extracts of Medicinal Plants on Urinary Excretion and Ion Exchange //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 90-97.
31. Djanaev G. Y. et al. Effect on the Organism When Chronic Administration of a New Phytopreparation //Scholastic: Journal of Natural and Medical Education. – 2023. – Т. 2. – №. 4. – С. 188-195.

- 32.Djanaev G. Y., Askarov O. O., Sultanov S. A. Phytotherapy of Gastric Ulcer (Literature Review) //Texas Journal of Medical Science. – 2022. – Т. 15. – S. 51-59.
- 33.Djanaev G. Y. et al. PHARMACOTHERAPEUTIC EFFECTIVENESS OF HERBAL MEDICINE" YAZVANOL" IN THE EXPERIMENTAL INDOMETHACINE GASTROPATY MODEL //World Bulletin of Public Health. – 2023. – Т. 21. – S. 144-147.
- 34.Khakimov Z. Z., Djanaev G. Y., Askarov O. O. Study Of the Effect of a Mixture of Extracts of Medicinal Plants on the State of the Gastric Mucosa in Gastropathy Induced by Indomethacin //Eurasian Medical Research Periodical. – 2023. – Т. 19. – S. 90-95.
- 35.Djanaev, G. Y., Khakimov, Z. Z., Allaeva, M. J., Makhsumov Sh, M., Zaytseva, O. A., & Mamadjanova, M. A. Comparative Study of the Influence of Lesbochole, Misoprostol and Mucagen on the Gastric Mucous Barrier in Indometacin Gastropathy.
- 36.Акрамова Я. З. и др. Эффективность глицерама в коррекции нарушений желчеобразовательной функции печени при остром токсическом гепатите //Sciences of Europe. – 2020. – №. 48-2 (48). – С. 36-38.
- 37.Хакимов З. З. и др. Влияние глицерама на желчеобразовательную функцию печени при остром токсическом гепатите. – 2020.
- 38.Джанаев Г. Ю., Атабаева Г. ОЦЕНКА ФАРМАКОЛОГИЧЕСКОЙ АКТИВНОСТИ НОВОГО ФИТОПРЕПАРАТА ПРИ ГАСТРОПАТИИ //Материалы Международной научной конференции молодых ученых и студентов «Перспективы развития биологии, медицины и фармации», организованной Южно-Казахстанской медицинской академией и Фондом Назарбаева в режиме видеоконференцсвязи 10-11декабря 2020 года, г. Шымкент, Республика Казахстан. – 2019. – Т. 12. – №. 2. – С. 56.
- 39.Djanayev G. Y. Dorivor o'simliklar quruq ekstraktining rezerpinli me'da yarasiga ta'siri : dis. – Tibbiyotdagi zamonaviy ilmiy tadqiqotlar, 2022.
- 40.Allaeva M. Z. et al. Influence of lesbochol dry extract on the current of experimental nervo-reflective gastric ultra //European Journal of Molecular and Clinical Medicine. – 2020. – Т. 7. – №. 3. – S. 2749-2753.
- 41.Xakimov Z., Djanaev G., Xolmatov J. PROKINETICHESKAYA AKTIVNOST NOVOGO FITOPREPARATA «LESBOXOL» //Eurasian Journal of Medical and Natural Sciences. – 2022. – Т. 2. – №. 13. – S. 205-209.
- 42.Аллаева М. Ж., Джанаев Г. Ю., Ачилов Д. Д. АСНILLEA MILLEFOLIUM L. ЎСИМЛИГИ ҚУРУҚ ЭКСТРАКТИНИНГ ҚОН ИВИШ ЖАРАЁНИГА ТАЪСИРИНИ ЎРГАНИШ ИЗУЧЕНИЕ ВЛИЯНИЯ СУХОГО ЭКСТРАКТА АСНILLEA MILLEFOLIUM L. НА СВЕРТЫВАЮЩЕЕ СИСТЕМЫ КРОВИ Тошкент тиббиёт академияси //ЎЗБЕКИСТОН ФАРМАЦЕВТИК ХАБАРНОМАСИ. – С. 61.
- 43.Худайбердиев, Х. И., Мустанов, Т. Б., Мамаджанова, М. А., & Джанаев, Г. Ю. ИССЛЕДОВАНИЕ ХОЛЕРЕТИЧЕСКОЙ АКТИВНОСТИ НИГЛИЗИНА.
- 44.Джанаев Г. Ю. Influence Of Lesbochol Dry Extract On The Current Of Experimental Nervo-Reflective Gastric Ultra. – 2020.
- 45.Джанаев, Гайрат Юсупович. "Уткир токсик гепатитда глицерамнинг сафро ва унинг таркибидаги моддаларнинг экскрециясига таъсирини ўрганиш." (2020).
- 46.Djanaev, G. Y., Sh, M., Mamadzhanova, M. A., & Kholmatov, J. A. (2023). PHARMACOTHERAPEUTIC EFFECTIVENESS OF HERBAL MEDICINE" YAZVANOL" IN THE EXPERIMENTAL INDOMETHACINE GASTROPATY MODEL. World Bulletin of Public Health, 21, 144-147.

47. Юсупович, Джанаев Файрат, Зиявиддин Зайниддинович Хакимов, and Хужамурат Исоқович Худайбердиев. "ИНДОМЕТАЦИН ТАЪСИРИДА РИВОЖЛАНГАН ГАСТРОПАТИЯДА ЛЕСБОХОЛ, МИЗОПРОСТОЛ ВА МУКАГЕННИНГ МЕЪДА ШИЛЛИҚ ҚАВАТИ ҲИМОЯ ТИЗИМИГА ТАЪСИРИНИ ҚИЁСИЙ ЎРГАНИШ." (2022).
48. Djanaev, G. Y., & Mamadjanova, M. A. (2023). Effect on the Organism When Chronic Administration of a New Phytopreparation. Scholastic: Journal of Natural and Medical Education, 2(4), 188-195.
49. Khakimov Z. Z., Djanaev G. Y., Askarov O. O. Study Of the Effect of a Mixture of Extracts of Medicinal Plants on the State of the Gastric Mucosa in Gastropathy Induced by Indomethacin //Eurasian Medical Research Periodical. – 2023. – Т. 19. – С. 90-95.
50. Аллаева М. Ж., Асқаров О. О., Кдырниязова С. А. The study of hypoglycemic effect of dry extract of chicory //Биология и интегративная медицина. – 2017. – №. 3. – С. 184-191.
51. Хакимов З., Джанаев Г., Холматов Ж. ПРОКИНЕТИЧЕСКАЯ АКТИВНОСТЬ НОВОГО ФИТОПРЕПАРАТА «ЛЕСБОХОЛ» //Eurasian Journal of Medical and Natural Sciences. – 2022. – Т. 2. – №. 13. – С. 205-209.
52. Djanaev G. Y. et al. Pharmacotherapy of Gastropathy (Literature Review) //Texas Journal of Medical Science. – 2023. – Т. 17. – С. 67-76.
53. Djanaev G. Y. et al. Effect on the Organism When Chronic Administration of a New Phytopreparation //Scholastic: Journal of Natural and Medical Education. – 2023. – Т. 2. – №. 4. – С. 188-195.
54. Khakimov Z. Z. Effect of Derivatives of Glycyrrhetic Acid on the Intensity of Free Radical Processes During Immobilization Stress //Pioneer: Journal of Advanced Research and Scientific Progress. – 2022. – Т. 1. – №. 1. – С. 7-12.
55. Djanaev G. Y. et al. Comparative Study of the Influence of Lesbochole, Misoprostol and Mucagen on the Gastric Mucous Barrier in Indometacin Gastropathy.
56. Allaeva, M. Z., Dzhanayev, G. Y., Khudoiberdiev, K. I., Mamadzhanova, M. A., & Mustanov, T. B. (2020). Influence of lesbochol dry extract on the current of experimental nervo-reflective gastric ultra. European Journal of Molecular and Clinical Medicine, 7(3), 2749-2753.
57. Dzhanayev G. Y., Allaeva M. J., Rakhmonov A. X. EFFECTIVENESS OF LESBOXOL IN PREVENTION OF GASTRIC ULCER //Ультразвуковая визуализация в анестезиологии и реаниматологии. – 2022. – С. 8-10.
58. Abdikhoshimovich K. J. et al. Applications of Physics in Diagnostic Imaging //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 98-107.
59. Djanaev G. Y. et al. Effect of Dry Extracts of Medicinal Plants on Urinary Excretion and Ion Exchange //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 90-97.
60. Kholmatov J., Singh K., Sultanov S. PERSISTENCE OF SMOKING IN YOUTH DESPITE AWARENESS OF IT'S ADVERSE EFFECTS //International Bulletin of Medical Sciences and Clinical Research. – 2023. – Т. 3. – №. 5. – С. 199-207.
61. Шадманов А. К. и др. МАРКЕРЫ НАРУШЕНИЙ ВАЗОМОТОРНОЙ ФУНКЦИИ ЭНДОТЕЛИЯ //Re-health journal. – 2021. – №. 2 (10). – С. 130-133.

62. Шадманов А. К. и др. РОЛЬ ДИСФУНКЦИИ ЭНДОТЕЛИЯ В ПАТОГЕНЕЗЕ ЗАБОЛЕВАНИЙ //Re-health journal. – 2021. – №. 2 (10). – С. 122-129.
63. Olimdjanovich A. O. et al. Studying the Sugar reducing Activity of the Preparation of Dry Extract of Chicory //Texas Journal of Multidisciplinary Studies. – 2023. – Т. 17. – С. 1-5.
64. Аллаева М. Ж., Асқаров О. О., Кдырниязова С. А. The study of hypoglycemic effect of dry extract of chicory //Биология и интегративная медицина. – 2017. – №. 3. – С. 184-191.
65. Хакимов З., Джанаев Г., Холматов Ж. ПРОКИНЕТИЧЕСКАЯ АКТИВНОСТЬ НОВОГО ФИТОПРЕПАРАТА «ЛЕСБОХОЛ» //Eurasian Journal of Medical and Natural Sciences. – 2022. – Т. 2. – №. 13. – С. 205-209.
66. Djanaev G. Y. et al. Pharmacotherapy of Gastropathy (Literature Review) //Texas Journal of Medical Science. – 2023. – Т. 17. – С. 67-76.
67. Djanaev G. Y. et al. Effect on the Organism When Chronic Administration of a New Phytopreparation //Scholastic: Journal of Natural and Medical Education. – 2023. – Т. 2. – №. 4. – С. 188-195.
68. Khakimov Z. Z. Effect of Derivatives of Glycyrrhetic Acid on the Intensity of Free Radical Processes During Immobilization Stress //Pioneer: Journal of Advanced Research and Scientific Progress. – 2022. – Т. 1. – №. 1. – С. 7-12.
69. Djanaev G. Y. et al. Comparative Study of the Influence of Lesbochole, Misoprostol and Mucagen on the Gastric Mucous Barrier in Indometacin Gastropathy.
70. Allaeva, M. Z., Dzhanayev, G. Y., Khudoiberdiev, K. I., Mamadzhanova, M. A., & Mustanov, T. B. (2020). Influence of lesbochol dry extract on the current of experimental nervo-reflective gastric ultra. European Journal of Molecular and Clinical Medicine, 7(3), 2749-2753.
71. Dzhanaev G. Y., Allaeva M. J., Rakhmonov A. X. EFFECTIVENESS OF LESBOXOL IN PREVENTION OF GASTRIC ULCER //Ультразвуковая визуализация в анестезиологии и реаниматологии. – 2022. – С. 8-10.
72. Abdikhoshimovich K. J. et al. Applications of Physics in Diagnostic Imaging //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 98-107.
73. Djanaev G. Y. et al. Effect of Dry Extracts of Medicinal Plants on Urinary Excretion and Ion Exchange //European Journal of Medical Genetics and Clinical Biology. – 2023. – Т. 1. – №. 1. – С. 90-97.
74. Kholmatov J., Singh K., Sultanov S. PERSISTENCE OF SMOKING IN YOUTH DESPITE AWARENESS OF IT'S ADVERSE EFFECTS //International Bulletin of Medical Sciences and Clinical Research. – 2023. – Т. 3. – №. 5. – С. 199-207.

