



PREVALENCE AND EPIDEMIOLOGY OF BLADDER CANCER IN BUKHARA REGION

Shodiev O'lmas Mustafayevich
Bukhara State Medical Institute

Summary

According to the Global Cancer Observatory, in recent years, about 400 thousand new cases of the disease have been registered on our planet annually, and in 2020 the number of patients suffering from bladder cancer has already reached 573.3 thousand (3% of all cases of cancer). This review is dedicated to the topic of malignant tumors of the bladder, to the study of prevalence and epidemiology in the Bukhara region.

Keywords: bladder, malignant tumor, epidemiology, region.

Relevance

Around the world, there is a trend towards an increase in the incidence and mortality from malignant neoplasms. Currently, oncological diseases are one of the main medical and social problems that directly affect human health. At the end of 2021, 113,168 patients were registered in oncological institutions, i.e. 0.3% of the country's population. In terms of prevalence among tumors of the urinary system, bladder cancer (BC) ranks second, and among all malignant neoplasms, it ranks ninth in the world. About 356 thousand new cases of BC are registered annually [Shevchenko A.N., Komarova E.F., Filatova E.V. et al., 2017]. Organ-preserving treatment of bladder cancer in 60-80% of cases ends with tumor recurrence. Traditionally, cystoscopy with a biopsy of cellular material is used to detect recurrent bladder cancer [Mikhailenko D.S., Sergienko S.A., Zaborsky I.N. et al., 2018]. All over the world, a scientific search is underway for additional diagnostic criteria that could allow, during follow-up examinations of patients operated on for bladder cancer, to abandon cystoscopy in favor of less invasive research methods. In this connection, it is relevant to predict the risk of developing BC recurrence before surgical treatment using non-invasive, fast-performing research methods [Dzidzaria A.G., Pavlov A.Yu., Gafanov R.A. et al., 2019]. Prediction in the preoperative period of the risk of recurrence of bladder cancer may allow the development of a set of measures for tertiary prevention of the disease in order to reduce the likelihood of recurrence and improve treatment outcomes. According to numerous epidemiological studies, the vast majority of malignant neoplasms (up to 90%) are to some extent associated with adverse environmental factors, the accumulation of genotoxic compounds in it, including





carcinogens and mutagens [Kulinsky V.I., 2000]. A genetic defect can be caused by such genotoxic factors as benzene, melphalan, azathioprine, chlorobutyl, benzpyrene, aniline dyes, inorganic compounds of chromium, nickel, selenium; physical factors (radiation, ultraviolet, laser radiation) and oncogenic viruses. The direct action of the carcinogen on the cell causes DNA damage, disrupting the normal function of genes and controlled proteins, which is called the initiation of the tumor process. Many of the genes involved in carcinogenesis encode proteins necessary for proliferation, differentiation and apoptosis [Stavrovskaya AA, 2000].

P.F. Kiku et al. [Kiku P.F., Moreva V.G., Yudin S.V. et al., 2015] revealed a high prevalence of oncological pathology in areas of critical and tense environmental situation, where enterprises of the coal, mining and chemical industries, the construction industry, mechanical engineering and in areas with intensive chemicalization of agriculture are located. The increase in the incidence of malignant neoplasms of the bladder and kidneys is due to the deterioration of the quality of the environment due to the growth of technogenic loads. RMP tends to increase in the direction from the continental bioclimatic zone to the coast in all ecological zones, which is largely due to differences in the structure of the bioclimate of the coast and the continental regions of the region.

In the etiology of bladder cancer, infection plays a significant role [Stanley B.M., 2002]. The combination of urodynamic disorders and chronic infection, often observed in the clinic, is the background for the development of chronic inflammation in the bladder wall. This increases the proliferative activity of the urothelium, and an increase in the number of mutations is associated with this [Shacter E., Sigmund A., Weitzman A., 2002]. Prolonged drainage of the bladder becomes a risk factor for infection in itself. In addition, mechanical trauma to the bladder wall with a catheter for a long time maintains and enhances the inflammatory response in the bladder mucosa, significantly increasing the risk of bladder cancer [32]. More than 40 genital types of human papillomavirus (HPV) are known, which occur in benign and malignant pathology of the male genitourinary organs. The group of low oncogenic risk is mainly 6, 11, 42, 43, 44 types, high oncogenic risk - 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 and 68 types [Bouwes J.N., Neale R.E., Abeni D., et al., 2010]. A number of works have been devoted to the association of bladder cancer with HPV, but the results of studies remain controversial. Highly oncogenic HPV types were identified in 52.4% of men with malignant diseases of the bladder, while type 16 persistence occurred in 95.5% of histological tumor samples [Li N., Yang I., Zhang Y., et al., 2011]. HPV types 16 and 18 are most common in bladder tumors [Barghi M.R., Rahjoo T., Borghei M., et al., 2012]. The frequency of association of HPV with benign and





malignant pathology of the organs of the male urinary system allows us to consider the prostate gland, penis and bladder as a reservoir of HPV and indicates a high risk of their development with the persistence of papillomaviruses of high oncogenic risk [Kaprin A.D., Trushina O.I., Novikova E.G. et al., 2014].

According to Professor M.N. Tillyashaykhova, in the Republic of Uzbekistan at the end of 2021, 113168 (in 2020 - 107196) patients were registered in oncological institutions, i.e. 0.3% of the country's population. In 2021, 45111 (39.9%) patients with MN were registered in the dispensary for 5 years or more (in 2020 - 39.4%). By regions, this indicator varied from 18.9% in the Republic of Karakalpakstan to 51.6% in the Bukhara region. The largest proportion (total 77.2%) is the weight of patients observed for 5 years or more, was observed in patients diagnosed with bladder cancer (2.1%).

Information about the contingent of patients with malignant neoplasms of the bladder registered in oncological institutions of the Bukhara region in 2021

Abs.number of detected cases	Per 100,000 population	Actively detected (%)	Diagnosis confirmed morphologically (%)	1-year mortality (%)
42	2,2	0,0	85,7	23,1

Distribution by disease stages (%)

I	II	III	IV	Registered at the end of the year (total)		
				Absolute number	Per 100,000 population	Of which 5 years or more (%)
38,1	19,0	11,9	31,0	226	11,6	46,9

Information about patients who died from malignant neoplasms of the bladder in the Bukhara region in 2021

Absolute number	men	women	Total	Rate per 100,000 population.
	12	2	14	0,7

Oncological incidence of the bladder of the population of the Republic of Uzbekistan for 2015-2021. (per 100,000 population)

	Years						
	2015	2016	2017	2018	2019	2020	2021
Total MN	1,5	1,4	1,6	1,6	1,7	1,4	1,6



Literature

1. Nuriddinov Asliddin Mehriiddinovich MORPHOLOGICAL CHANGES OF HEART IN 3-MONTH-OLD NONBREED RATS UNDER THE INFLUENCE OF AN ENERGY DRINK // Web of Scientist: International Scientific Research 3 (10), 2022, 307-313
2. RI Israilov, BA Sanoev, AZ Olimova Pathologically Undifferentiated Placental Morphology in Primary Placental Insufficiency // American Journal of Medicine and Medical Sciences. Volume: 10 Issue: 09 | 2020. 660-663 p
3. Sanoev Bakhtiyor Abdurasulovich MORPHOLOGICAL AND MORPHOMETRIC CHARACTERISTICS OF THE PLACENTA IN NORMAL PREGNANCY.// DEVELOPMENT OF A MODERN EDUCATION SYSTEM AND CREATIVE IDEAS FOR IT, REPUBLICAN SCIENTIFIC-PRACTICAL ONLINE CONFERENCE ON "SUGGESTIONS AND SOLUTIONS" Issue: 06 | 2020. 94-96 p
4. БА Саноев, ТШ Ниёзова, НИ Хикматова МАКРО-И МИКРОСКОПИЧЕСКИЕ ПРОЯВЛЕНИЯ ЛЕЙОМИОМ МАТКИ // Новый день в медицине. Номер 2 . 2020. С. 526-528
5. Sanoyev Bakhtiyor Abdurasulovich, Olimova Aziza Zokirovna. Pathology of Precancerous Conditions of the Ovaries in Women of Reproductive Age. // Volume: 01 Issue: 06 | 2021.
6. Aziza Zokirovna Olimova, Sanoyev Bakhtiyor Abdurasulovich. OVARIAN DISEASES IN AGE OF REPRODUCTIVE WOMEN: DERMOID CYST. // Volume: 01 Issue: 06 | 2021. 154-161 p
7. Aziza Zokirovna Olimova, (2021, July). COMPARATIVE CHARACTERISTICS OF THE MORPHOLOGICAL PARAMETERS OF THE LIVER AT DIFFERENT PERIODS OF TRAUMATIC BRAIN INJURY. // In Euro-Asia Conferences (pp. 139-142).
8. Aziza Zokirovna Olimova. Частота Встречаемости Миомы Матки У Женщин В Репродуктивном Возрасте. // JOURNAL OF ADVANCED RESEARCH AND STABILITY (JARS). Volume: 01 Issue: 06 | 2021. 551-556 p
9. Aziza Zokirovna Olimova. РЕПРОДУКТИВ ЁШДАГИ ЭРКАКЛАРДА БЕПУШТЛИК САБАБЛАРИ: БУХОРО ТУМАНИ ЭПИДЕМИОЛОГИЯСИ. // SCIENTIFIC PROGRESS. 2021 й 499-502p
10. Aziza Zokirovna Olimova. MACRO- AND MICROSCOPIC STRUCTURE OF THE LIVER OF THREE MONTHLY WHITE RATS. // ACADEMIC RESEARCH IN EDUCATIONAL SCIENCES /2021 й. 309-312 p





11. Aziza Zokirovna Olimova. Cytological screening of cervical diseases: pap test research in the bukhara regional diagnostic center for the period 2015-2019 // Web of Scientist: International Scientific Research 3 (7), 2022, 121-128
12. OA Zokirovna Technique for cutting biopsy and surgical material in the practice of pathological anatomy and forensic medicine // Web of Scientist: International Scientific Research Journal 3 (7), 2022, 116-120
13. Sadiev Erali Samiyevich, Namozov Farrux Jumayevich ENDOSCOPIC INTERVENTIONS AND OZONE THERAPY IN THE COMPLEX TREATMENT OF PATIENTS WITH MECHANICAL JAUNDICE AND CHOLANGITIS WITH CHOLEDOCHOLITHIASIS. ResearchJet Journal of Analysis and Inventions. 2021. 9(2),22-27
14. Sadiev Erali Samiyevich, Isroilov Rajabboy Israilovich ГЎДАКЛАР ТАСОДИФИЙ ЎЛИМИДА ЮРАК ЎТКАЗУВЧИ ЙЎЛЛАРИ ПАТОМОРФОЛОГИЯСИ. Central asian journal of medical and natural sciences. 2(5),152-156
15. Sadiev Erali Samiyevich PATHOMORPHOLOGY OF THE CARDIAC TRACT IN ACCIDENTAL MORTALITY OF INFANTS. WEB OF SCIENTIST:INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL. Volume 2, Issue 10, Oct., 2021.64-70
16. Sadiev Erali Samievich, Jurayeva Gulbaxor Bakhshilloyevna BRONCHOPULMONARY COMPLICATIONS AFTER HEART SURGERY WITH CONGENITAL DEFECTS. INTERNATIONAL JOURNAL FOR INNOVATIVE ENJINEERING AND MANAGEMENT REWSEARCH. Vol 10 Issue01, Jan2021.320-323
17. Sadiev Erali Samievich, Sanoyev Bakhtiyor Abdurasulovich HEART DISEASES IN FORENSIC MEDICAL PRACTICE: SUDDEN CARDIAC DEATH // World Bulletin of Public Health- Volume-8, March 2022. P. 76-79
18. Sadiev Erali Samievich, Sanoyev Bakhtiyor Abdurasulovich HEART DISEASES IN FORENSIC MEDICAL PRACTICE: SUDDEN CARDIAC DEATH// «Тиббиётда янги кун» 2 (40) 2022. P. 26-30.
19. Sadiev Erali Samievich, Sanoyev Bakhtiyor Abdurasulovich HEART PATHOLOGY IN THE PRACTICE OF FORENSIC MEDICAL AUTOPSY:CARDIOSCLEROSIS // «Тиббиётда янги кун» 2 (40) 2022. P. 31-34.
20. Кадырова, Л. В., & Рахимова, Г. Ш. (2021). Некоторые Аспекты Состояния Эндокринных Желёз Белых Крыс После Черепно-Мозговой Травмы. Central Asian Journal of Medical and Natural Science, 254-257.





21. Кадилова Лайло Валижановна, Нодирддинов Достон Мирзохидович, ОСОБЕННОСТИ ПАТОФИЗИОЛОГИЧЕСКОГО ТЕЧЕНИЯ СИНДРОМА ДЛИТЕЛЬНОГО СДАВЛИВАНИЯ, BARQARORLIK VA YETAKSHI TADQIQOTLAR ONLAYN ILMİY JURNALI: Vol. 2 No. 4 (2022): BARQARORLIK VA ETAKCHI TADQIQOTLAR ONLAYN ILMİY JURNALI 13-17.
22. Кадилова Лайло Валижановна, Махмудов Шохрух Сохибович ПАТОФИЗИОЛОГИЧЕСКИЙ ПОДХОД ИЗУЧЕНИЯ ГОРНОЙ БОЛЕЗНИ // Vol. 2 No. 4 (2022): BARQARORLIK VA ETAKCHI TADQIQOTLAR ONLAYN ILMİY JURNALI
23. Кадилова, Лайло Валижановна, Темиров, Тимур Ихтиярович ПАТОФИЗИОЛОГИЧЕСКИЙ ПОДХОД ИЗУЧЕНИЯ ЭЛЕКТРОТРАВМЫ // ORIENSS. 2022. № Special Issue 4-2. URL: <https://cyberleninka.ru/article/n/patofiziologicheskiiy-podhod-izucheniya-elektrotravmy> (дата обращения: 05.11.2022).
24. Лайло Валижановна Кадилова ИНТЕРАКТИВНЫЙ МЕТОД « БЛИЦ ОПРОС » ПРИ ПРЕПОДАВАНИИ ПРЕДМЕТА ПАТОЛОГИЧЕСКАЯ ФИЗИОЛОГИЯ, НА ПРИМЕРЕ ТЕМЫ: «ВОСПАЛЕНИЕ» // Scientific progress. 2022. №2. URL: <https://cyberleninka.ru/article/n/interaktivnyy-metod-blits-opros-pri-prepodavanii-predmeta-patologicheskaya-fiziologiya-na-primere-temy-vospalenie> (дата обращения: 05.11.2022).
25. Кадилова Л.В. ОСОБЕННОСТИ МАКРОСКОПИЧЕСКОЙ ХАРАКТЕРИСТИКИ НАДПОЧЕЧНИКОВ 3-МЕСЯЧНЫХ БЕЛЫХ КРЫС ПОСЛЕ ТЯЖЕЛОЙ ЧЕРЕПНО-МОЗГОВОЙ ТРАВМЫ // ЎЗБЕКИСТОН РЕСПУБЛИКАСИ СОҒЛИҚНИ САҚЛАШ ВАЗИРЛИГИ ТОШКЕНТ ТИББИЁТ АКАДЕМИЯСИ . Вестник ТМА № 3, 2022 . С. 80.
26. Шодиев Ульмас Мустафоевич Морфологические характеристики яичек под воздействием радиации // Международный журнал инновационных анализов и новых технологий. № 6 , 2021. С. 218-222
27. Дилноза Саётовна Косимова. ИЗУЧЕНИЕ ЭЛЕМЕНТНОГО СПЕКТРА В КРОВИ У МЫШЕЙ С САХАРНЫМ ДИАБЕТОМ. // Современные инновации № 4 (38), 2020
28. Азиза Садиллоевна Жалилова, Дилноза Саётовна Косимова. Клинико–Лабораторная Характеристика Пациентов С Covid-19 И Предиктор Антибактериальной Терапии // CENTRAL ASIAN JOURNAL OF MEDICAL AND NATURAL SCIENCES. 2021. С. 81–86.



29. DS Kosimova, AV Paliuk. Prohibition of Discrimination: Concepts, Features and Obligations of the State according to the Convention for the Protection of Human Rights and Fundamental Freedoms // L. & Innovative Soc'y. 2021. С. 99.
30. АА Элмурадова, ДС Косимова, НШ Шадыева. Вклад Абу али ибн Сино в развитие фитотерапии // Новый день в медицине. 2020. №4. С. 604-606.
31. Дилноза Саётовна Косимова. О моделях экспериментального развития СД2 // Современные инновации. 2020. Т. 4 № 38 С. 13-14.
32. DS Kosimova, AU Adashev. Directions to increase productivity competitiveness in industrial enterprises // Economics and Innovative Technologies. 2019. №2. С. 17.
33. D. S Kosimova. The Genesis of the Franchising Legal Regulation. // JE Eur. L. 2018. 118-p. 37.
34. SU Mustafievich ,Morphological Characteristics of Testicles under Radiation (2021.12.1)International Journal of Innovative Analyses and Emerging Technology № 1(6)P .218-222
35. Shodiev O'lmas Mustafievich, Olimova Aziza Zokirovna. РЕПРОДУКТИВ ЁШДАГИ ЭРКАКЛАРДА БЕПУШТЛИК САБАБЛАРИ: БУХОРО ТУМАНИ ЭПИДЕМИОЛОГИЯСИ. SCIENTIFIC PROGRESS. 2021 й 499-502p
36. O'lmas Mustafievich Shodiev(2021/11/29) Pathologies encountered in the kidney in the practice of forensic medical examination . Journal. Academia globe: Inderscience Research. № 2(11) P .39-43
37. Shodiev O'lmas Mustafievich, Expression level of anti-apoptotic protein Bcl-2 in bladder papillomas(2022/8/13). Web of Scientist: International Scientific research Journal. .№ 3(8) P .297-305
38. Shodiev O'lmas Mustafievich, Khaidarova Nargiza Akhtamovana(2022/6/19) EPITELIAL SAFE TUMORS OF BLADDER RATE, TYPES AND CAUSES. Web of Scientist: International Scientific research Journal. .№ 3(6) P .905-912
39. Shodiev O'lmas Mustafievich, Khaidarova Nargiza Akhtamovana(2022/6/19) .MEETING OF KIDNEY CYSTERS IN COURT MEDICAL AUTOPSY PRACTICE. Web of Scientist: International Scientific research Journal. .№ 3(6) P .893-898
40. Shodiev O'lmas Mustafievich, Khaidarova Nargiza Akhtamovana(2022). Epitelial safe tumors of bladder rate, types and causes. Web of Scientist: International Scientific research Journal. .№ 3(6) P .905-912.
41. Khaidarova Nargiza Akhtamovana, Khotamova sarvinoz Muyitdinovna(2024/4/23). European Multidisciplinary journal of Modern Science. .№ 5 P .402-406
42. Khaidarova Nargiza Akhtamovana, PANOMORPHOLOGY OF FETUS ASPHIXIA. Web of Scientist: International Scientific research Journal. .№ 3(8) P .501-508.