



New Day in Medicine
Новый День в Медицине

NDM



TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

5 (67) 2024

**Сопредседатели редакционной
коллекции:**

**Ш. Ж. ТЕШАЕВ,
А. Ш. РЕВИШВИЛИ**

Ред. коллегия:

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

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

*Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

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

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

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

РЕДАКЦИОННЫЙ СОВЕТ:

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

5 (67)

2024

Май

www.bsmi.uz

https://newdaymedicine.com E:

ndmuz@mail.ru

Тел: +99890 8061882

EPIDEMIOLOGICAL FEATURES OF COVID-19 DISEASE AGAINST VACCINATION IN BAKU

Rustamova Lala Islakh. <https://orcid.org/0000000253786954>
Gurbanov Akif Irzakhan Email: akifgurbanov@mail.ru
Heydarova Farida Hafiz Email: fheyderova@inbox.ru
Shikhaliyeva Sheyda Talat Email: sheydashikhaliyeva@gmail.com
Farajova Svetlana Mammad Email: lala.rustamova.1967@mail.ru
Hajiyeva Tamilla Israfil Email: tamila.hajieva@gmail.com

Scientific Research Institute of Medical Prophylaxis named after V.Y.Akhundov
Azerbaijan Baku str. C.Cabbarli 35.

✓ Resume

BACKGROUND - A number of factors such as age, gender, geographical location, climate, season directly or indirectly affect the incidence intensity of the epidemic process in Covid-19 infection. Therefore, the analysis of age, gender, territorial and seasonal features of the Covid-19 disease is very important in terms of characterization of the epidemic process course.

AIM- is to assess the epidemiological situation according to Covid-19 among the population before vaccination and against the background of vaccination in Baku.

METHODS - Statistical processing of morbidity indicators with Covid-19 was carried out in the MS EXCEL-2019 program with the application of the discriminant method

RESULTS - The results of the study showed that before vaccination, the epidemic process of Covid-19 infection in Baku was bilingual. In 2021, the epidemic process of Covid-19 infection in Baku was characterized by uneven course against the background of vaccination

CONCLUSIONS - The maximum incidence of Covid-19 before vaccination was determined in the fall of both the population, men and women, and in the spring, against the background of vaccination Among the Covid-19 patients in Baku in 2020, 43.0% were men and 57.0% were women. In 2020, the epidemic of Covid-19 infection in Baku had a wavy course, with the first epidemic in July and the second epidemic in December. The Covid-19 incidence among the population was registered all the year round and every season, but the maximum incidence was in the fall. In the case of vaccination, the course of the epidemic process was uneven during the compared period and there was a gradual decrease in the level of morbidity.

Keywords: Covid-19, the epidemiological analyse, the epidemic process, vaccination

Relevance

The first official data on the prevalence of new coronavirus infection (Covid-19) was provided on December 31, 2019. The primary focus of infection was the fish market in the city of Whan, the People's Republic of China.

On March 11, 2020, the World Health Organization (who) announced the onset of the Covid-19 pandemic in connection with the rapid and global spread of this infection [1, 2]. The data published on coronavirus infection are based mainly on the material base of who, the Centers for Disease Control in the People's Republic of China and the USA, as well as the European Center for Disease Control on the treatment and Prevention of infection [3-7].

Currently, the Covid-19 pandemic has been registered in more than 200 countries, more than 430 million people have been infected, and about 6 million have died of this infection. Today, experts compare the scale of the damage caused by the infection Covid-19 to the damage caused by the "Spanish" flu, recorded at the beginning of the twentieth century. the United States, Brazil, India and Russia take the first place in the rating list of morbidity with Covid-19.

The following variants of the course of the epidemic process during the Covid-19 pandemic are discussed:

- active dissemination and infection of more people with the expansion of coverage;
- the epidemic outbreak off in the next few months;
- undulating process within concrete infected areas;

- development of the epidemic by the known similar scenario (China, Italy, the USA);
- mixed models that depend on territorial, geographical, ethnic and other differences;
- the abortive process of Covid-19 infection [8-10].

A number of factors such as age, gender, geographical location, climate, season directly or indirectly affect the incidence intensity of the epidemic process in Covid-19 infection [11-14]. Therefore, the analysis of age, gender, territorial and seasonal features of the Covid-19 disease is very important in terms of characterization of the epidemic process course [15-18].

The research work purpose: Is to assess the epidemiological situation according to Covid-19 among the population before vaccination and against the background of vaccination in Baku.

For this purpose, the following tasks are planned to be solved:

1. to carry out a retrospective epidemiological analysis of seasonal features of Covid-19 morbidity and monthly incidence in the general population, as well as among men and women, before vaccination in Baku in 2020;

2. to carry out monthly and seasonally analysis of the Covid-19 morbidity rate among the general population and men and women in 2021 against the background of vaccination in Baku;

The research materials and methods. In the research work, epidemiological diagnosis of Covid-19 among the population was carried out before vaccination and against the background of vaccination in Baku, the level of morbidity among the general population (including men and women) was investigated in dynamics depending on months and seasons.

The information about daily morbidity with Covid-19 among the population in Baku was taken from the official website www.koronavirus.az.

The quality signs were expressed with mean rates and standard error while the discrete signs were indicated in percentage of morbidity (%) and prosantimille (‰). The comparison of the two groups on quality signs was carried out using the χ^2 criterion. The obtained differences were considered statistically significant with $p < 0,05$ [19].

The research results and their discussion

In March-August 2020 (prior to vaccination), the Covid-19 incidence among the general population was $9537,4 \pm 20,4$ persons per 100,000 people, $8351,4 \pm 27,1$ persons per 100,000 men, and $10538,1 \pm 30,2$ persons per 100,000 women. Among the general population, the Covid - 19 incidence began to increase in March, the maximum morbidity rate was recorded in July - $625,9 \pm 5,2$ persons per 100,000 people. In August, the incidence decreased 3 times as compared to July, and the rate was $198,7 \pm 2,9$ per 100,000 people. The Covid-19 incidence rate among men and women reached its peak in July - it was $569,9 \pm 7,1$ persons per 100,000 people, and $681,5 \pm 7,7$ persons per 100,000 people, accordingly. In August, the incidence rate decreased significantly among men and women, as well as among the general population ($p < 0,001$). It should be noted that since January 2021, according to the "National vaccination strategy against Covid-19 in the Republic of Azerbaijan for 202-2022", the process vaccination against Covid-19 has started in the country. In March - August 2021, the Covid-19 incidence rate among the population in Baku was $515,5 \pm 4,7$ persons per every 100,000 people. Morbidity rates began to increase in March and April and were identified as $1190,0 \pm 7,2$ persons per every 100,000 people, and $2494,9 \pm 10,4$ persons per every 100,000 people, accordingly. In May, the Covid-19 incidence was more than 3 times higher as compared to April. In June, the Covid-19 morbidity rates decreased dramatically, and it was $70,1 \pm 1,7$ persons per every 100,000 people. In July, the incidence rate was not so high - it was $339,1 \pm 3,8$ persons per every 100,000 people. In August, the highest level of morbidity with Covid-19 was recorded in Baku - it was $3522,8 \pm 12,4$ persons for every 100,000 people. The epidemiological analysis conducted in 2021 against the background of vaccination (March - August 2021) in Baku, showed the cumulative incidence with Covid-19 among the population was 206612 people (absolute number). Among the patients with Covid-19, men were 97738 persons, and women - 108874 persons. In the sex structure of the Covid-19 patients, women were more dominant than men. A comparative analysis of the intensity of morbidity with Covid-19 (‰, prosantimille) both among the general population and among men and women showed that unequal morbidity with Covid-19 was recorded. Differences between Covid-19 and incidence intensity were highly statistically significant and honest in the remaining months (except March and April), as well as in men and women ($p < 0,001$).

Seasonal features of the Covid-19 morbidity rate among population and the population groups were studied in spring and summer during vaccination period.

In the general population and the population groups (men and women), the minimum Covid-19 incidence was in summer and the maximum in spring. Among the general population of Baku, the Covid-19 incidence was fixed as $4346,1 \pm 13,7$ persons for every 100,000 people in spring, and $3932,1 \pm 13,1$ persons for every 100,000 people in summer.

The specific morbidity ratio among both men and women reached its peak in spring (March-May) - it was 4091,1±18,9 persons, and 4598,5±19,9 persons for every 100,000 people.

The epidemiological analysis has made it possible to conclude that the maximum incidence of Covid-19 among the population was in the spring in Baku against the background of vaccination.

Conclusions

1. Prior to vaccination in Baku (2020) among Covid-19 patients there were 95275 men, 121422 women, and against the background of vaccination (in 2021) among Covid-19 people there were 97738 men and 108874 women.
2. Prior to vaccination, the epidemic process of Covid-19 infection in Baku was bilingual. In 2021, the epidemic process of Covid-19 infection in Baku was characterized by uneven course against the background of vaccination.
3. The maximum incidence of Covid-19 before vaccination was fixed in the fall of both the population, men and women, and in the spring, against the background of vaccination. Authors declared about absence the conflict of interests. There is no the sponsor's supporting.

LIST OF REFERENCES:

1. WHO Coronavirus Disease (Covid-19) Dashboard. October 2020.
2. World Health Organization. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). <https://www.who.int/news-room/detail>.
3. Wang C. A novel coronavirus outbreak of global health concern *Lancet*, 2020;395(10223):470-3.
4. İşsever H., İşsever T., Öztan G. Epidemiology of COVID-19 // *Journal of Advanced Research in Health Sciences*, 2020;3:13.
5. Minah P., Alex R., Jue T. et al. A systematic review of Covid-19 epidemiology based on current evidence *J. Clin. Med.*, 2020;9(4):967.
6. Dong Y., Mo X., Hu Y. et al. Epidemiology of Covid-19 among children in China *Pediatrics*, 2020;1(6):145.
7. Holshue M. First case of 2019 Novel Coronavirus in the United States *N. Engl. J. Med.*, 2020;382(10):929-36.
8. Nikiforov V.V., Suranova T.G., Mironov A.Ju., Zabozaev F.P. New coronavirus infection (Covid-19): etiology, epidemiology, clinic, diagnosis, treatment and prevention. *M.*, 2020;48
9. Rassohin V.V., Samarina L.V., Beljakov N.A. i dr. Epidemiology, clinic, diagnostics, assessment of the severity of COVID-19 disease, taking into account comorbidity // *HIV infection and immunosuppression*, 2020;12(2):7-30.
10. Meskina E.R. Preliminary clinical and epidemiological analysis of the first 1000 cases of Covid-19 in children in the Moscow region *Journal of Microbiology, Epidemiology and Immunobiology*, 2020;97(3):202-15.
11. Krajcar N., Stemberger L., Surina A. et al. Epidemiological and clinical features of Croatian children and adolescents with a PCR – confirmed coronavirus disease 2019: differences between the first and second epidemic waves *Croatian Medical Journal*, 2020;61(6):491-500.
12. Nikiforov V.V., Suranova T.G., Chernobrovkina T.Ja. i dr. Novel coronavirus infection (Covid-19): clinical and epidemiological aspects *Archives of Internal Medicine*, 2020;2:87-93.
13. Gudbjartsson D., Helgason A., Jonson H. et al. Spread of Sars-CoV-2 in the Icelandic population // *N.Engl.J.*, 2020;382(24):2302-15.
14. Vu C., Chen X., Cai Y. et al. Risk factors associated with acute respiratory distress syndrome and death in patients with coronavirus disease in Wihan China *JAMA Intern. Med.*, 2020;180(7):934.
15. Dhakal S., Karki S., Early epidemiological features of Covid-19 in Nepal and public health response *Front.Med.*, 2020;524.
16. Minah P., Alex R., Jue T. et al. A systematic review of Covid-19 epidemiology based on current evidence // *J.Chin.Med.*, 2020;9(4):967.
17. Chan-Yaung M., Xu R., SaRS: epidemiology *Respirology* 2003;8(Suppl):9-14.
18. Lipsitch M., Swedlow D., Finelli L. Defining the Epidemiology of Covid-19 Studies Needed. *N. Engl. J. Med.*, 2020;125.
19. Pokrovskij V.I., Briko N.I. General epidemiology of evidence-based medicine, Moscow, GEOTAR, 2018;495.
20. Zi When Ch., Guang ,et al. Coronavirus Disease 2019 (Covid-19) A Perspective from China *Radiology*, 2020;25.

Entered 20.04.2024