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EPIDEMIOLOGY DESCRIPTION OF "END EPIDEMIOLOGY POINTS" OF ACUTE SURGICAL DISEASES OF ABDOMINAL ORGANS IN THE POPULATION WITH COVID-19 AND POST-COVID SYNDROME

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Abstract
This article discusses COVID-19 and post-COVID syndrome, the epidemiological characteristics of the "endpoints" of acute surgical diseases of the abdominal cavity in the population are studied, and new directions in the study of the problem are discussed. The implementation of this task can help predict the development and consequences of acute abdominal diseases and develop the basis for the prevention of these diseases.

Keywords: Covid-19, post-covid syndrome, epidemiology, "epidemiological endpoints".

Introduction

Relevance and necessity of the topic.

The coronavirus infection COVID-19, which has caused a new pandemic since 2020, has joined the list of diseases that are increasing the mortality rate of the population. Numerous studies show that in 2020, when the pandemic began, mortality rates increased in almost all countries of the world compared to previous years [11; 13, pp. 733-47; 14, pp. 130-137].

Currently, there is no information on the specifics of the course of acute abdominal diseases (AAD) in the population with COVID-19 in the Central Asian region, including in the regions of Uzbekistan. The novel coronavirus infection (COVID-19), which originated in the "painful days" and is caused by the SARSCOV-2 virus, has a very pronounced and characteristic clinical picture [WHO, 2021]. One of the main features of COVID-19 is a cytokine storm - a pronounced immune-inflammatory response, which determines its unpleasant "therapeutic and surgical consequences" [12, pp. 1708-1720; 7].

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According to WHO, certain diseases that are included in the CRC are found in every fourth person on earth aged 60-70 years. [1, p. 4-41; 3; 10]. Early detection, prevention and improvement of treatment outcomes of these urgent diseases in the population with COVID-19 are among the most problematic issues of modern science and practice.

According to the WHO (2020), COVID-19 is a severe infectious disease with a high mortality rate. The disease has spread to 235 countries and territories, and as of October 25, 2020, the number of cases has reached 42,512,186, with a sharp increase in the number of deaths. [2; 4; 5] This situation is accompanied by the emergence of non-infectious pathologies associated with COVID-19 and post-COVID syndrome, including abdominal

The development of urgent preventive measures that can counteract the increased risk of developing acute diseases of the pelvic organs is urgent. [6; 8; 9]

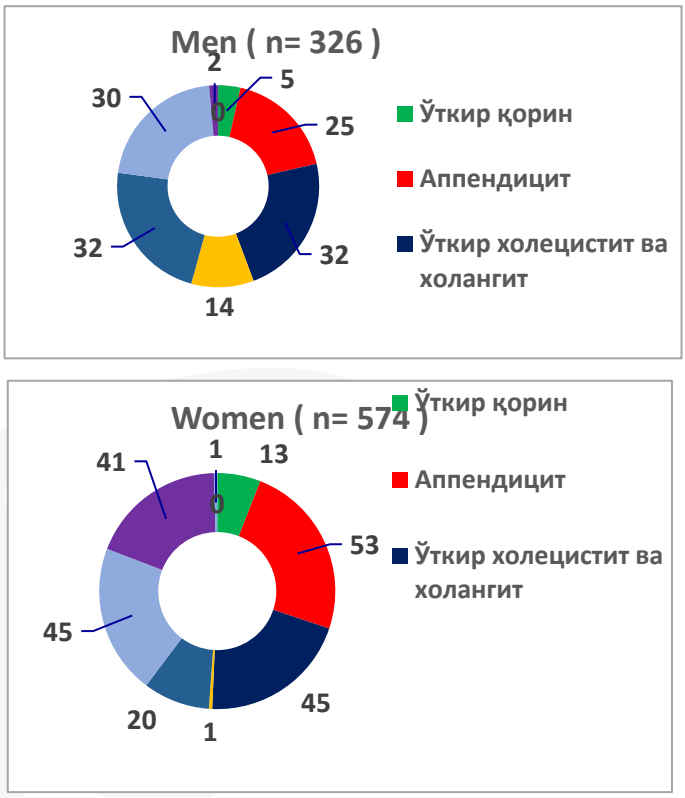

Figure 1. Description of mortality from acute surgical diseases of the abdominal cavity in the population with COVID-19

However, these issues remain insufficiently addressed in the population with COVID-19 in our country. We were unable to find data on the prevention, clinical course, and prevalence of CBC in the Uzbek population with COVID-19, and such results have not been obtained in the regions of Uzbekistan.

Based on the results of a specific study, the direction and degree of change in the theoretical risk of expected death from COVID-19 and post-COVID ("endpoint") due to changes in epidemiological conditions relative to "epidemiological endpoints" (EOP) were determined.

The data obtained in the study showed (Figure 1) that the total number of “endpoints” (EPs) of COVID-19 cases in the population was 100,000. It is characterized by detection frequencies reaching up to 8.7%, in certain types.

In particular, acute abdomen -2.0% (-27.8% in men and -72.2% in women), appendicitis -8.7%, 32.1% and 67.9% respectively (χ 2 =3.952; P<0.05), acute cholecystitis and cholangitis -8.5%, 41.6% and 58.4% (χ 2 =2.084; P>0.05), acute pancreatitis -0.1% (χ 2 =0.606; P>0.05), gastroduodenal bleeding -3.8%, 41.2% and 58.8% (χ 2 =2.084; P>0.05), acute intestinal obstruction -8.8%, 41.6% and 58.4% (χ 2 =2.084; P>0.05), complicated from hernia -7.9%, 42.3% and 57.7% (χ 2 =2.157; R>0.05) and from gastroduodenal perforating ulcer -03%, 66.7% and 33.3% (χ 2 =1.121; R>0.05).

"OEN" is most often confirmed in appendicitis, acute cholecystitis and cholangitis, acute intestinal obstruction and complicated hernia; the least frequently recorded "OEN" from the GCA is acute pancreatitis and gastroduodenal perforated ulcer.

The analysis of the COVID population by age group, according to the “OEN” from the OBJECTIVES, shows that (Table 3.16 and Figure 3.16 in the appendix) the following prevalence rates of “OEN” are observed in various forms of OBJECTIVES: in acute abdomen -5.6% (in young age) and 94.4% (45-89 years) [χ 2 =1.422; P>0.05; RR=0.345; 95% CL=0.050-2.404; r=0.118), in appendicitis -5.2% and 94.8% [χ 2 =1.422; P>0.005; RR=0.345; 95% CL =0.128-0.708); from acute pancreatitis -1.0 (only in 75-89 years old), from gastroduodenal bleeding -0.0% and 100.0% (45-89 years old), from acute intestinal obstruction -5.2% and 94.8% [χ 2 =23.66; P<0.001; r=0.477; RR=0.301; 95% CL=0.128-0.708], from complicated hernia -5.6% and 94.4% [χ 2 =16.34; P<0.001; r=0.396; RR=0.328; 95% CL=0.139-0.773] and from gastroduodenal perforated ulcer -33.3% and 66.7% [χ 2 =0.764; P>0.05; r=0.086; RR=2,750; 95% CL =0.265 -28.57].

The risk of death from NCDs increases with age, reaching up to 100.0% in the case of Covid-19.

2 presents the epidemiological characteristics of mortality from acute surgical diseases of the abdominal cavity in the population with post-COVID syndrome.

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Figure 2. Description of mortality from acute surgical diseases of the abdominal cavity in the population with post-COVID syndrome (Appendix 15)

Various forms of CBC are characterized by the following frequencies of occurrence in the total post-COVID syndrome population as a whole and in the group of women and men: acute abdomen -1.53%, 9.1% and 10.5% [χ 2 =0.037; P>0.05; r=0.031; RR=0.875; 95% CL=0.225-3.403]; appendicitis -4.38%, 50.0% and 50.0% [χ 2 =0.244; P>0.05; r=0.079; RR=1.16; 95% CL=0.634-2.147]; acute cholecystitis and cholangitis -6.36%, 51.7% and 48.3% [χ 2 =1.412; R>0.05; r=0.190; RR=1,250; 95%

CL=0.867-1.803]; acute pancreatitis -0.0% and 0.0%, gastroduodenal bleeding -1.11%, 40.0% and 60.0% [χ 2 =0.205; R>0.05; r=0.072; RR=0.778; 95% CL=0.260-2.330]; acute intestinal obstruction from -6.36%, 51.7% and 48.3% [χ 2 =1.912; R>0.05; r=0.190; RR=1,250; 95% CL=0.867-1.803]; complicated hernia -6.14%, 50.0% and 50.0% [χ 2 =0.591; R>0.05; r=0.123; RR=1.167; 95% CL=0.790 -1.724]; gastroduodenal perforated ulcer -1.31%, 66.7% and 1.31% [χ 2 =1.201 R>0.05; r=0.175; RR=2.333; 95% CL=0.482-11.28].

Mortality in post-COVID syndrome is most often due to acute cholecystitis and cholangitis, as well as complicated hernia, although appendicitis also carries a high risk. In other NCDs, the risk of NCDs is minimal in post-COVID syndrome.

When analyzing the characteristics of mortality from acute surgical diseases of the abdominal cavity in the population with post-COVID syndrome, depending on age, it was found (Table 3.18) that in most cases, AED is observed in people aged 75-89; it is not detected at all in people aged 18-21, and it is confirmed at low rates with a sharp difference in the rate in people aged 22-44.

" acute abdomen " and post-covid syndrome increase with age in the population depending on the age, it is confirmed that in young people -28.6%, in 45-59 years -28.6%, in 60-74 years -42.9% and in 75-89 years -0.0% [χ 2 =0.654; P>0.05; r=0.129; RR=2.160; 95% CL=0.324-14.40]; in appendicitis -10.0%, 33.0%, 55.0% and 0.0% [χ 2 =1.761; P>0.05; r=0.213; RR=0.508; 95% CL =0.151-1.704]; in acute cholecystitis and cholangitis -3.4%, 41.4% and 55.2% and 0.0% [χ 2 =16.15; P<0.001; r=0.643; RR=0.163; 95% CL=0.026 -1.007]; in acute pancreatitis, no deaths were observed; in gastroduodenal bleeding -20.0%, 10.0%, 70.0% and 0.0% [χ 2 =0.0386; P>0.05; r=0.031; RR=1.143; 95% CL=0.306-4.261]; in acute intestinal obstruction -3.4%, 41.4%, 55.2% and 0.0% [χ 2 =16.15; P<0.001; r=0.643; RR=0.163; 95% CL=0.026-1.007]; in complicated hernia -3.6%, 42.9%, 53.6% and 0.0% [χ 2 =13.93; P<0.001; r=0.598; RR=0.169; 95% CL=0.027-1.046]; in gastroduodenal perforated ulcer -0.0%, 50.0%, 50.0% and 0.0% mortality is recorded.

Conclusion. The specific epidemiological insights presented in this chapter into the COVID-19 pandemic and its associated “endpoints” have prognostic value and can be used to improve existing treatment and prevention programs.

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