

## TYOLOGY OF HYPOTAXEME WITH ADVERBIAL CLAUSE OF CAUSALITY AND ITS CONSTANT FEATURES IN LANGUAGES

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**Abstract:** The new coronavirus infection, or COVID-19, has caused a pandemic around the world. This infection was first reported in the Republic of Uzbekistan in March 2020. A feature of this infection was the general susceptibility of people and the rapid development of pulmonary complications. Often, COVID-19 was also accompanied by other complications of organ systems, especially the immune and cardiovascular systems, which together led to the death. We conducted a comparative analysis of the severity and mortality of civilian and military cohorts who received therapy after confirmed COVID-19 in a temporary hospital organized by the Ministry of Defense of the Republic of Uzbekistan and the Central Military Clinical Hospital on the territory of Uzexpo from July 1 to December 22, 2020.

**Keywords:** COVID-19, SARS-CoV-2, military, civilian, mortality, course severity, fatality rate, years of potential life lost (YPLL)..

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## СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА КЛИНИЧЕСКОГО ТЕЧЕНИЯ И ИСХОДА КОВИД-19 У ГРАЖДАНСКОЙ И ВОЕННОЙ КОГОРТ

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**Abstract:** Коронавирусная инфекция 2019 года, или COVID-19 стал причиной пандемии во всем мире. Впервые об этой инфекции в Республике Узбекистан было сообщено в марте 2020 года. Особенностью данной инфекцией была всеобщая восприимчивость людей и быстрое развитие легочных осложнений. Нередко, COVID-19 сопровождался также другими осложнениями органов систем, в особенности иммунной и сердечно-сосудистой систем, которые в совокупности приводили к неблагоприятному исходу как смерть. Нами было проведено сравнительный анализ тяжести течения и смертности гражданских и военных когорт, которые получали терапию после подтвержденного COVID-19 во временном стационаре организованном МО РУЗ и центральным военным клиническим госпиталем на территории УзЭкспо в период с 1 июля до 22 декабря 2020 года..

**Keywords:** COVID-19, SARS-CoV-2, военные, гражданские, смертность, тяжесть течения, коэффициент летальности, количество лет потерянной потенциальной жизни (КЛППЖ)...

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# ФУҚАРОЛИК ВА ҲАРБИЙ КОГОРТДА COVID-19НИНГ КЛИНИК КЕЧИШИ ВА АСОРАТЛАРИНИНГ ҚИЁСИЙ ХАРАКТЕРИСТИКАЛАРИ

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**Abstract:** 2019 йилги коронавирус инфекцияси ёки COVID-19 бутун дунё бўйлаб пандемияга сабаб бўлди. Ушбу инфекция Ўзбекистон Республикасида илк бор 2020 йилнинг март ойида қайд этилган. Ушбу инфекциянинг ўзига хос хусусияти одамларнинг умумий сезувчанлиги ва ўпка асоратларининг тез ривожланиши ҳисобланади. Қўпинча, COVID-19 орган тизимлари, айниқса иммунитет ва юрак қон-томир тизимларининг бошқа асоратлари билан бирга бўлиб, улар биргаликда ўлим қаби нохуш оқибатларга олиб келди. Ўзбекистон Республикаси Мудофаа вазирлиги Марказий ҳарбий клиник госпитали ҳамкорлигида “ЎзЭкспо” ҳудудида ташкил этилган вақтинчалик госпиталда COVID-19 тасдиқланганидан кейин 2020 йил 1 июлдан 22 декабргача даво муолажаларини олган фуқаролар ва ҳарбий қўроқларнинг оғирлиги ва ўлимнинг қиёсий тахлилини ўтказдик

**Keywords:**

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## INTRODUCTION:

Study results suggest milder course of COVID-19 in military individuals and fewer adverse outcomes compared with civilian population. Regular physical training, balanced nutrition and normal sleep are prerequisites for a healthy lifestyle [ten]. Undoubtedly, the above circumstances contribute to less convalescence.

A novel coronavirus infection, also known as coronavirus disease 2019 (COVID-19) or severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was detected in Wuhan, China in December 2019 [1, 2]. On January 22, 2020, the World Health Organization (WHO) confirmed human-to-human transmission of the disease [3, 4], announced a global outbreak on January 31, and recognized it as a pandemic on March 11 [5, 6].

On March 15, 2020, the first case of the disease was registered in Uzbekistan, and shortly after that, quarantine measures were announced in the Republic [7]. However, strict quarantine measures required strict adherence to these standards. As a result, paramilitary structures were involved to fulfill the quarantine requirements. Along with quarantine measures, specialized hospitals were organized to treat patients with coronavirus infection.

Since the beginning of the pandemic, successful prevention and treatment of patients with a new type of coronavirus infection has been the main task not only of civilian public medicine, but also of military doctors [1]. In addition, hospitals organized jointly with the Ministry of Defense of the Republic of Uzbekistan served

both the military and the civilian population [3]. Nevertheless, we must remember that the military contingent differs from the civilian population in a number of ways: a) age differences - unlike the general population, the military have a younger age; b) the military are more male; c) the general health of the military is better than that of civilians; d) the military is much more likely to undergo medical examinations; e) are obliged to follow orders from above; f) more isolated from the general population g) work and live in closer contact than civilians.

In this study, we tested the aspect of inequality in the severity of the course and mortality from a new type of coronavirus infection between the military and civilian populations. Moreover, we measured the lethality rate and the number of years of potential life lost (CLPPL). Taking into account the differences in the official statistics of average life expectancy in Uzbekistan, we have chosen two indicators, 65 and 75 years. The method of identifying the number of years not lived in each cohort was used to calculate the CLPP for each group of these patients.

Each of these indicators is a way of assessing survival and is valuable information for health services.

#### **MATERIALS AND METHODS:**

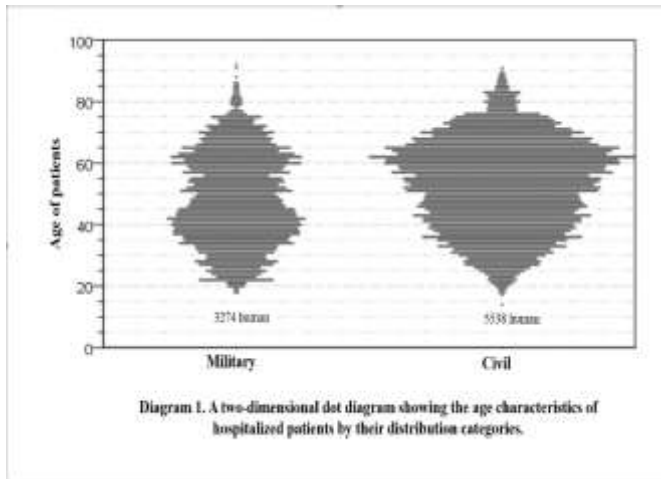
Materials for the study were collected for the period from July 1 to December 22, 2020 on the basis of a specialized temporary clinic organized by the Ministry of Defense of the Republic of Uzbekistan and the Central Military Clinical Hospital on the territory of Uzexpo. The collected medical information was presented in the form of military/civilian categories, age, gender, disease severity, bed-days, and disease outcome. The military contingent of patients was represented by 3274 people (37.16%) and, while the civilians were represented by 5537 (62.84%) (diagram 1).

The Kaplan Meier method with log rank test was used to calculate survival. The case fatality rate was measured as the ratio of fatal cases to the total number of patients.

KLEPL was calculated by summing the number of years not lived up to 65 and 75 years in the category of patients with a fatal outcome. Statistical procedures were performed on IBM SPSS ver. 26.0 (Armonk, NY, USA). Quantitative data were analyzed using unpaired t-test and Mann-Whitney U-test. The Kaplan-Meier test was used to assess survival.

#### **RESEARCH RESULTS:**

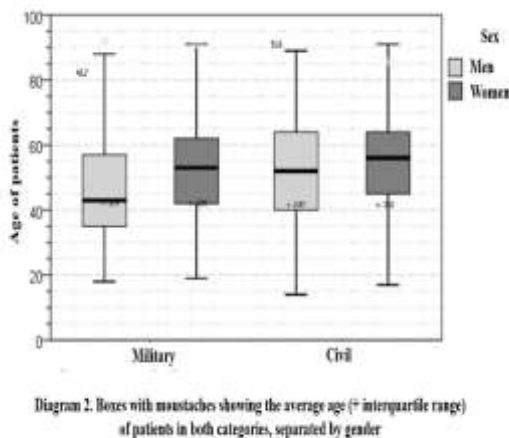
Between the civilian population and the military, reliable quantitative differences, as well as differences in distribution by sex



sign ( $p < 0.01$ ) (Diagrams 1,2). The age of the patients of the military cohort was younger (taking into account former military who are retired) of the civilian population ( $p < 0.01$ ) (Figure 2.). The same differences were revealed in the distribution by gender: 57.3% of military and 47.1% of civilians were male ( $p < 0.01$ ). According to the severity of the course, the military the

cohort tolerated COVID-19 more easily. ( $p < 0.001$ ) (Diagram 4). However, the duration of hospitalization was shorter in the civilian population, averaging 7.2 days, when those in the military were equal to 8.2 days ( $p < 0.001$ ) (Figure 3). According to the outcome of the disease, as noted earlier, we analyzed mortality among two cohorts of patients. According to our results, the fatal outcome was less registered in the military cohort (21 out of 3274 military) than in the civilian cohort (69/5538) ( $p < 0.01$ ). Thus, the mortality rate in the military group of patients was 0.64%, in civilian patients 1.24%, which is almost a two-fold indicator.

The Kaplan-Meier survival analysis using the logic test also indicated a better survival of the military group of patients compared to civilian ones (Figure 5).



Despite a significant mild course of the disease and a small number of adverse outcomes in the military cohort, in the study we noted a difference in the age of death. The fatal outcome in the military was noted distinctly younger - ( $59.3 \pm 13.5$  years), compared with the civilian population ( $68.1 \pm 11.8$  years) ( $p = 0.005$ ). Considering this circumstance, we calculated the number of years of potential life lost (CLIP), which revealed some features. For the calculation,

we determined two categories of years of average survival (65 years and 75 years) (Table 1). The analysis of the average indicators of the CLPP of the two cohorts showed no differences between them.

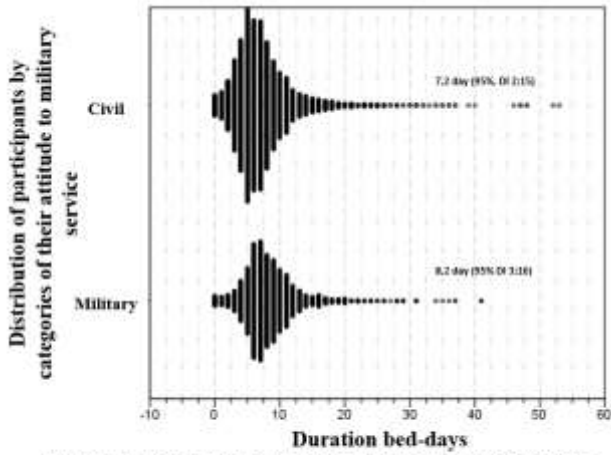


Diagram 3. A dot diagram showing the length of days of beds for civilian and military contingents (figures indicate the average number of days of hospitalization and 95% confidence interval)

Table 1

Comparative characteristics of the total number and average indicators ( $\pm$  standard deviation) of CLPPJ65 and CLPPJ75 in military and civilian cohorts

	CLPPJ 65 in years	Mean values with standard deviation for CLPPJ65	CLPPJ 75 in years	Mean values with standard deviation for CLPPJ75	Significance on Student's t-test (p value)
<i>Military (21 fatal cases)</i>	181	12,1 $\pm$ 9,74	331	22,1 $\pm$ 9,7	0,47
<i>Civilians (69 fatal cases)</i>	256	9,8 $\pm$ 9,2	516	19,8 $\pm$ 9,2	0,48
<i>Total</i>	437		847		

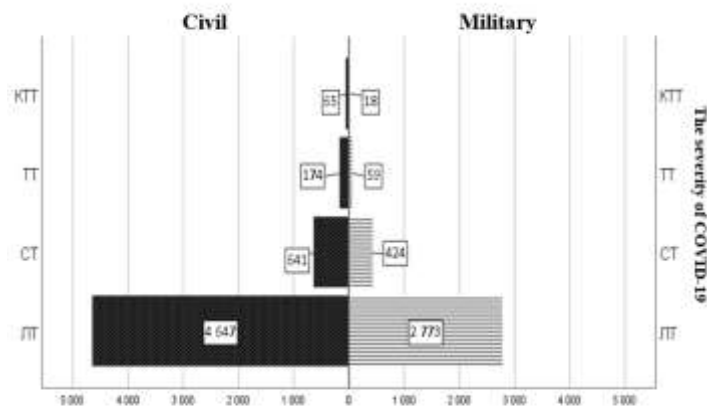
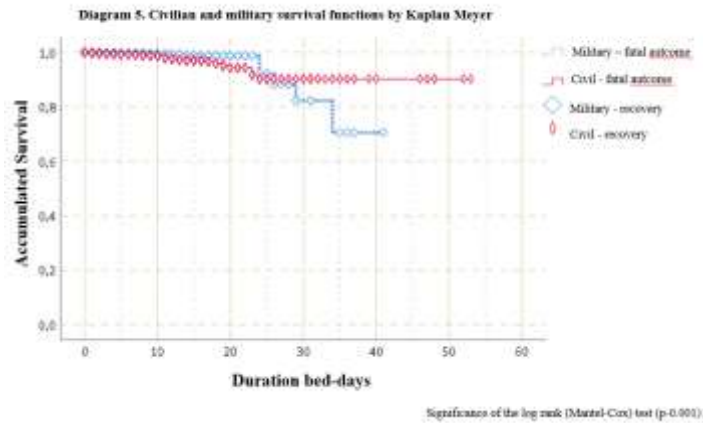


Diagram 4. Comparative quantitative (number of patients) pyramid by severity of COVID-19 by cohorts

Note to Diagram 4. LT – light current severity; CT – median current severity; TT – heavy current; CTT – extremely heavy current.



## CONCLUSION:

The results of the study show a milder course of COVID-19 in the military and a small number of adverse outcomes compared to the civilian population. Regular physical training, balanced nutrition and normalized sleep are prerequisites for a healthy lifestyle [10]. Undoubtedly, the above circumstances contribute to less susceptibility to diseases and can serve as a cofactor for accelerated convalescence. In addition, the military contingent regularly undergoes scheduled medical examinations, which are not typical of the civilian population [11]. Together, all these factors could play a role in the milder course of Covid-19 and fewer deaths in the military cohort, as opposed to the civilian one.

Despite these positive features of the course of COVID-19 in military personnel, we determined the onset of death at a younger age in this cohort. According to the results of the study, mortality in the military occurred at a younger age than in the civilian population. This result of the study came as a surprise to us and could also be a sampling error. However, when assessing CLPPW [12] (the number of years of potentially lost life), there were no significant differences in both cohorts.

As a result, despite some limitations, the results of this study are valuable information for the health care system. In favor of this statement, one can name the uniqueness of such cases when there are the same conditions for the diagnosis and treatment of diseases for such a different contingent of patients. Secondly, the study population in both cohorts is quite large, which reduces the occurrence of gross errors in statistical analysis, despite some errors. Third, despite the similarity of the epidemiological type of studies, this study is rare due to the difficulty of implementation.

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