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Editor
Komarytskyy M.L.
Ph.D. in Economics, Associate Professor

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EPIDEMIOLOGY OF HYPERTENSIVE CRISES AMONG THE WORKING-AGE POPULATION WHEN PROVIDED AID AT THE PRIMARY HEALTH CARE CENTER

Sid' Eugene
Ph.D. (Cand. Sc. Med.), Associate Professor of the
Department of General Practice (Family Medicine),
Psychiatry and Neurology,
Educational and Scientific Institute of Postgraduate Education,
Zaporizhzhia State Medical and Pharmaceutical University, Ukraine

Introduction. Hypertension (HT) is one of the most prevalent chronic diseases globally, affecting approximately 1.3 billion adults. This widespread condition constitutes a significant public health challenge worldwide and particularly in Ukraine. A notable trend towards an increase in the absolute number of people with HT has been observed over recent decades. This suggests that demographic factors, such as global population growth and aging, are the primary drivers of this process (Romano S., 2024; Korylchuk N., 2023).

A hypertensive crisis (HC) is an acute manifestation of HT, accounting for 0.5-2% of all cases among patients with HT. In a study by A.T. Abebe et al., the prevalence of HC among patients presenting to the emergency department was reported to be 4.9 %. The vast majority (91%) of patients who present with HC have previously been diagnosed with HT. This underscores that the issue of HC is not solely a matter of emergency care, but also reflects significant gaps in the long-term management of HT within the primary healthcare system (Abebe A.T., 2024; Goldovsky B.M., 2017).

It should be noted that an uncomplicated HC can progress to a complicated one, leading to the development of serious cardiovascular events, such as acute myocardial infarction or stroke. A complicated HC not only worsens the patient's prognosis but also substantially increases the economic burden on the healthcare

system due to rising costs for subsequent treatment and patient rehabilitation. Effective financial and material resource management at the primary healthcare level is critically important for minimizing these consequences. This necessitates a deep and comprehensive study of the HC problem, specifically: determining the precise prevalence of HC across different demographic groups, and analyzing the characteristics of this pathological condition's course in various populations. These considerations collectively defined the objective of the current study (Gebresillassie B. M., 2020).

Aim. The purpose of the work is to analyze epidemiological characteristics of hypertensive crises among the working-age population when provided aid at the primary health care center.

Materials and Methods. The study is based on data obtained through a retrospective analysis of patient visits to the primary health care center of the MNE «Clinic «Family Doctor» of Shyroke Village Council, Zaporizhzhia, Ukraine. These data were processed using the Helsi medical information system for the period from January 2024 to December 2024, inclusive. The total number of individuals with signed declarations in 2024 was 19,103. Morbidity rates among the population were calculated per 100,000 individuals.

Inclusion Criteria for the study were defined as follows: male and female patients aged 40 to 64 years; visit to the primary healthcare center for any reason; presence of an objectively confirmed hypertensive crisis upon presentation; permanent residency within the area serviced by the Primary Health Care Center (to ensure sample homogeneity).

Exclusion Criteria for the study included: patients with secondary arterial hypertension, defined as hypertension symptomatic of other underlying diseases; pregnant women, due to the specificity of hypertensive states during pregnancy; presence of mental disorders that could impede adequate communication and the acquisition of reliable data.

Verification of hypertensive crisis was conducted based on generally accepted diagnostic criteria, in accordance with the "Unified Clinical Protocol for Primary and

Specialized Medical Care “Hypertensive Disease (Arterial Hypertension)”", approved by Order No. 1581 of the Ministry of Health of Ukraine dated 12.09.2024. The type of HC was determined by the presence or absence of target organ damage (TOD), classifying it as: hypertensive urgency defined by the absence of clinical signs of acute TOD (code K86). Hypertensive emergency characterized by the presence of acute TOD (code K87).

Statistical Analysis of Results. Statistical processing of the obtained data was performed using a personal computer and the PSPP software package (version 1.2.0, GNU GPL license). When testing statistical hypotheses, the null hypothesis was rejected at a level of statistical significance (p) less than 0.05. Data were statistically processed using the non-parametric $\chi 2$ (Chi-squared) test.

Results and Discussion. The percentage of HCs was determined both from the total number of declared patients at the primary health care center and from the total number of patient visits. The total number of visits in 2024 reached 6,042, which constituted 31.63 % of the total number of declared patients. The proportion of HCs accounted for 40.17 % of all visits, representing 2,427 cases. The prevalence of HC in the overall declared patient population was 12.70 % in 2024.

For standardization purposes, the number of uncomplicated and complicated hypertensive crises was calculated per 100,000 individuals. In 2024, the rates were 8,951 cases for hypertensive urgency and 3,753 cases for hypertensive emergency per 100,000, respectively. The percentage of hypertensive emergency out of their total number constituted 29.5 % in 2024.

Even an hypertensive urgency represents one of the acute medical and social problems of the present time. It is not merely a complication of the course of HT but also a challenge that necessitates scientifically substantiated decisions regarding patient management tactics within the Primary Healt Care Center setting. Given the significant prevalence of HT in Ukraine and the current psychoemotional stresses, the incidence of HCs is rising, which urges a comprehensive scientific investigation of the problem (Sydorchuk A., 2024).

Despite its high frequency, HC remains a complex, inadequately studied, and

multifactorial problem. The complex nature of HC requires comprehensive investigation to better understand its underlying mechanisms, optimize the risk stratification of complications, and develop more effective treatment strategies for patients with HT (Benenson I., 2023).

Thus, the problem of hypertensive crisis poses a significant challenge for family physicians. The high global prevalence of Hypertension directly contributes to the increased frequency of this acute condition, underscoring the central role of the family physician in its prevention. Successfully addressing the issue of HC at the primary healthcare level necessitates a comprehensive approach that combines profound clinical knowledge with strict adherence to current guidelines and continuous improvement of the patient care delivery system.

Conclusions.

1. The frequency of hypertensive crisis is high relative to the total number of patients presenting to the Primary Health Care Center.

2. The high percentage of hypertensive emergency mandates the development of strategies aimed at reducing the risk of cardiovascular events.

Future Research Directions. Improving the protocol for emergency medical care in cases of hypertensive urgency, based on evidence and modern medical achievements, is a crucial task for the scientific community. Further research should focus on identifying the factors that arouse hypertensive crisis and the development of complications. The development of a risk stratification model for cardiovascular events in hypertensive urgency should assist the family physician in making decisions regarding the timely referral of the patient to the hospital treatment stage, which necessitates further investigation.

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