

Documents

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The impact of the COVID-19 pandemic on blood pressure control in patients with treated hypertension-results of the European Society of Hypertension Study (ESH ABPM COVID-19 Study)
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Abstract

Background: We aimed to determine the influence of coronavirus disease 2019 (COVID-19) pandemic on blood pressure (BP) control assessed by ambulatory blood pressure monitoring (ABPM). **Methods:** Office BP and ABPM data from two visits conducted within a 9–15 months interval were collected from patients treated for hypertension. In the prepandemic group, both visits took place before, while in the pandemic group, Visit-1 was done before and Visit-2 during the pandemic period. **Results:** Of 1811 collected patients 191 were excluded because they did not meet the required ABPM time frames. Thus, the study comprised 704 patients from the pandemic and 916 from the prepandemic group. Groups did not differ in sex, age, duration of hypertension, frequency of first line antihypertensive drug use and mean 24h BP on Visit-1. The prevalence of sustained uncontrolled hypertension was similar in both groups. On Visit-2 mean 24h BP, daytime and nighttime systolic BP and diastolic BP were higher in the pandemic compared to the prepandemic group ($P<0.034$). The prevalence of sustained uncontrolled hypertension on Visit-2 was higher in the pandemic than in the prepandemic group [0.29 (95% confidence interval (95% CI): 0.26–0.33) vs. 0.25 (95% CI: 0.22–0.28), $P<0.037$]. In multivariable adjusted analyses a significant difference in BP visit-to-visit change was observed, with a more profound decline in BP between visits in the prepandemic group. **Conclusions:** This study using ABPM indicates a negative impact of the COVID-19 pandemic on BP control. It emphasizes the need of developing strategies to maintain BP control during a pandemic such as the one induced by COVID-19. Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.

Author Keywords

ambulatory blood pressure monitoring; antihypertensive treatment; coronavirus disease 2019 pandemic; hypertension; office blood pressure

Index Keywords

alpha adrenergic receptor blocking agent, angiotensin receptor antagonist, antihypertensive agent, beta adrenergic receptor blocking agent, calcium channel blocking agent, dipeptidyl carboxypeptidase inhibitor, mineralocorticoid antagonist, potassium sparing diuretic agent, thiazide diuretic agent, antihypertensive agent; adult, Article, blood pressure monitoring, blood pressure regulation, confidence interval, controlled study, coronavirus disease 2019, diastolic blood pressure, female, human, hypertension, major clinical study, male, middle aged, pandemic, prevalence, systolic blood pressure, aged, blood pressure, blood pressure monitoring, drug therapy, epidemiology, Europe, hypertension, pandemic, pathophysiology, Severe acute respiratory syndrome coronavirus 2; Aged, Antihypertensive Agents, Blood Pressure, Blood Pressure Monitoring, Ambulatory, COVID-19, Europe, Female, Humans, Hypertension, Male, Middle Aged, Pandemics, SARS-CoV-2

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