

Abstract

Aim: The aim of the diploma thesis was to compare the proportion of causes of sudden cardiac arrests depending on age of the patient, to examine the proportion of sudden cardiac arrests depending on gender and to analyze the effect of age on the probability of occurrence of sudden cardiac arrests in Pardubice Region in 2022.

Methodology: It was chosen to use a quantitative retrospective analysis of data from the database of the state - funded institution Emergency Medical Service of the Pardubice Region in 2022. Hypotheses were processed using the chi-square test of independence with a significance level of 0.05.

Results: In a retrospective observational study of the causes of cardiac arrests in the Pardubice region in 2022, the total number of sudden circulatory arrests was 323. During the monitored period, there were 220 sudden circulatory arrests in men and 103 sudden circulatory arrests in women. 163 patients had heart attack, 14 respiratory arrest, 8 traumatic arrest, 26 other causes and in 112 patients the cause of sudden cardiac arrest was unknown. I also found an overall annual incidence of resuscitation initiations of 61.1 per 100,000 population with a significant upward trend with increasing age in both sexes. Cardiac diseases increased from the age of 40 in men and from the age of 50 in women with no difference in the relative incidence of cardiac causes between women and men.

Conclusion: The research took place from the 1st of January 2022 to the 31st of December 2022 in the Pardubice Region. Considering the low number of patients who experienced sudden circulatory arrest in the Pardubice Region in 2022, some of the results of this work are misleading, and therefore a longer observation with a larger number of patients would be appropriate.

Keywords: out-of-hospital care, cardiac arrest, cardiopulmonary resuscitation.