

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: The total number of sudden cardiac arrests was 323. During the given period, there were 220 sudden cardiac arrests in men and 103 sudden cardiac arrests in women. There were 163 patients who had sudden circulatory arrest due to cardiac cause, 14 patients due to respiratory cause, 8 due to an injury, 26 experienced cardiac arrest due to other causes, and 112 patients whose cause of the sudden circulatory arrest was unknown. The proportion of cardiac causes increased with increasing age. From the age group of 40-49 years, cardiac causes have stabilized at 50%. It is necessary to add that some cases, evaluated as unknown causes, can be considered as cardiac. Depending on age, the incidence had the shape of an exponential curve up to the age group of 80-89 years.

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