

Sudden Cardiac Death. A Look of Attention

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DOI: 10.31080/eccy.2019.RCO.07

COLUMN ARTICLE

Sudden death (SD) is probably the most important challenge of modern cardiology. Not only because of the large number of deaths it causes, but also because of the social impact it causes.

Cardiac SD (CDS) is characterized by sudden collapse or cardiac arrest secondary to cardiac arrhythmias, in people with or without heart disease; the blood stops flowing to the brain and the whole organism and causes death if it is not treated in minutes. Some of these patients may have symptoms of DS shortly before the event, but to establish the definitive diagnosis of an episode of sudden death it is necessary for the symptoms to last less than an hour [1-3]. Therefore, the three fundamental elements the definition of sudden death are a natural, rapid and unexpected death [4]. Most cases are secondary to an ischemic heart disease and occur at an outpatient level [2].

SD accounts for half of cardiovascular deaths and 25% of total deaths in adults. It is currently a major public health problem worldwide [1,5,6]. This is understandable if we consider that there are between 4 and 5 million annual events in the world, which translates into 10 events per minute [3]. In the West alone, between 450,000 and 500,000 deaths are reported each year, representing approximately one event per minute [1,5,6]. The incidence of DS increases gradually with age, but from 35 - 40 years the difference is between two and four times more frequent in the male population [1].

80% of the SDC occur in the context of a known coronary disease or not [1,3]. In most cases, ischemia triggers ventricular tachyarrhythmia processes that degenerate into ventricular fibrillation (VF), the end responsible for SD. In 15-20%, structural, congenital or acquired heart disease is responsible [1,2]. In this group, ventricular arrhythmia remains the predominant cause, but bradyarrhythmias also appear as the final cause of DS. (obstructions, asystole)

Citation: Claribel Plain Pazos., et al. “Sudden Cardiac Death. A Look of Attention”. EC Cardiology RCO.01 (2019): 18-19.

[1]. In a significantly lower percentage, the cause of SDC corresponds to primary electrical phenomena [1,3].

VF and ventricular tachycardia (TV) are the arrhythmias responsible for the greatest number of cases of sudden cardiac arrest. Other rhythms responsible for SD are asystole and pulseless electrical activity [2].

Cardiopulmonary resuscitation (CPR) prolongs the time window for successful defibrillation. The basic survival chain must be performed before cardiac arrest (CA). This chain involves the early detection of the patient and the activation of the medical emergency system, early CPR, early defibrillation, early advanced care and early post-recovery care. By making all the links in the survival chain within the first 5 minutes of the collapse, the survival rates of these patients improve significantly [1,2].

The advent of cardioversorimplantable defibrillator (CVD) represents a great advance in the prevention of SDC, it is a device with a high possibility of reversing an episode of TV or VF at sinus rhythm since it can defibrillate any of these arrhythmias in less than 15 seconds [1,2]. VF produces an irregular and chaotic contraction of the ventricular myocardium, with the consequent inability of the heart to maintain the blood flow of the body; If it does not revert to sinus rhythm, it will go into asystole and subsequently cause the patient's death [2].

Survival of sudden cardiac arrest at an outpatient level varies greatly depending on the place of study, but is estimated to be less than 5%; In the USA UU. An average survival of 4.6% has been reported. The main determinant of survival is the performance of early CPR and early defibrillation [2].

It is necessary that the patient who presents some of the heart disease that could evolve towards an SD knows it, in this way he can take necessary measures to be able to prevent it, on many occasions the previous knowledge and the perception of risk by the patient can save him life.

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