

Syncope: call for the missed diagnosis

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Funding Acknowledgements: Type of funding sources: None.

Background: Syncope is a common reason for emergency department attendance. This entity may be associated with significant morbidity and mortality and its differential diagnosis is not straightforward. Arrhythmic causes include tachycardia and bradycardia; the later may require pacemaker implantation. Many hospitals lack a dedicated syncope unit to approach these patients. So, patients' triage may fall into medical or surgical (trauma) areas.

Purpose: To describe the population of patients that required permanent pacemaker implantation in the year of 2019, particularly those who had a previous visit to the emergency department with syncope or presyncope.

Methods: Single-center descriptive analysis of patients that implanted a permanent pacemaker in 2019 (inclusion criteria). Additional information was collected in patients with emergency department visits in the 365 days that preceded the device implantation.

Results: In 2019, a total of 398 patients were admitted for pacemaker implantation in 2019, 55% male (n = 218), 45% female (n = 180), with mean age of 79 years. Regarding indications for pacing, 41% (n = 156) had complete atrioventricular (AV) block, 26% (n = 105) had a second degree AV block, 16% (n = 64) had sinus node dysfunction, 13.5% (n = 53) had atrial fibrillation with slow ventricular conduction, and 3.5% (n = 14) had other indications.

Twenty-two percent (n = 88) of patients had a previous visit to the emergency department (other than the ones that triggered the pacemaker implantation) with complaints of syncope (60%) or presyncope (40%). Of these, 73% (n = 64) were referred to a medical area and 27% (n = 24) were referred to a surgical area; 40 patients presented with traumatic lesions (68% cranioencephalic trauma and 32% other traumas). Of the 88 patients, only 67% (n = 59) performed an ECG and only 23% (n = 20) were referred for observation by a cardiologist in the emergency department.

Comparing medical and surgical triage, we observe that patients referred to the surgical area were less likely to perform an ECG and to be observed by a cardiologist (with statistical significance).

Conclusions: Our work describes a common problem in hospitals without dedicated syncope evaluation units. As all the patients ended up implanting a pacemaker, it is interesting to observe that 22% of these had a "warning" visit to the emergency and 33% of the last did not get and ECG. Also, trauma-oriented approaches result in a lower likelihood of performing a complete evaluation of the cause of the syncopal event. This analysis highlights the need for a comprehensive and multidisciplinary approach of patients presenting with syncope and presyncope to promote early identification and treatment of arrhythmic causes, reducing patient morbidity and healthcare costs.