Therapy for Syncope

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KEYWORDS

• Syncope • Reflex syncope • Counterpressure maneuvers • Cardiac syncope
• Syncope secondary to orthostatic hypotension • Pacemaker therapy • Bundle branch block

KEY POINTS

- The treatment of patients with syncope depends on the cause and final mechanism of syncopal episodes.
- Reflex syncope is a benign condition, with a good prognosis in terms of survival and only patients with recurrent and severe episodes need specific treatment.
- The initial measures for treating patients with reflex syncope are nonpharmacologic: provide information about the benign status of their condition, help in identifying and avoiding triggers, water ingestion, counterpressure maneuvers in those patients with prodromal symptoms, and tilt training in selected and motivated patients who are unresponsiveness to other treatments.
- Drug therapy has generally not showed any beneficial effect in patients with reflex syncope, with the possible exception of β-blockers in patients older than 42 years.
- In patients with syncope secondary to orthostatic hypotension, a multifactorial approach, including good hydration, reducing hypotensive drugs, compressive stockings, elevation of the head of the bed, and eventually fludrocortisone, can be helpful.
- In patients with suspected cardiac syncope and a high-risk profile for cardiac events or sudden death, an implantable cardioverter defibrillator must be considered irrespective of the final mechanism of syncope.
- In all patients with syncope of unknown origin, bundle branch block, and preserved left ventricular ejection fraction, 2 different strategies are proposed: a sequential strategy consisting of an electrophysiologic study, and if it is not diagnostic, implanting an implantable loop recorder or to implant a pacemaker without any additional test.

INTRODUCTION

In the therapeutic approach of any cardiovascular disease, 2 different objectives must be taken into consideration: relieving symptoms and improving the prognosis.

In syncope, relieving symptoms involves avoiding syncopal recurrences or, if this is not possible, at least reducing the number of syncopal recurrences. In some patients, another goal can be to convert recurrent sudden unexpected syncope leading to trauma to a syncope preceded by prodromal symptoms, allowing the patients to avoid injury.

The prognosis of patients with syncope depends on the cause (**Table 1**).[1–6] Patients with reflex syncope in general have a good prognosis in terms of survival[7] and, consequently, these patients should only be treated if they have frequent and disabling symptoms. In contrast, most patients with cardiac syncope have a poor prognosis in terms of survival, mainly related to the type and severity of the underlying heart disease and, consequently, in those patients, the treatment should be aimed at not only preventing syncopal recurrences but also decreasing the risk of cardiovascular events or sudden cardiac death.

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Table 1
Etiologic classification of syncope

Reflex syncope (neurally mediated)	Vasovagal Situational Carotid sinus syncope Atypical forms
Orthostatic hypotension	Primary autonomic failure Secondary autonomic failure Drug-induced Volume depletion
Cardiac	Arrhythmia • Bradycardia • Tachycardia Structural heart disease

Accordingly, the first point in the management of patients with syncope is to establish the cause and risk stratification.[1] The diagnostic process in patients with syncope is not always easy and includes a detailed clinical history, physical examination and baseline electrocardiogram; according to the results of these initial approaches, some additional tests must be performed. Using this strategy, the cause of syncope is diagnosed in 60% to 80% of patients; in the remaining patients, risk stratification can be established to identify those patients at risk of having cardiac events or death at midterm follow-up.

This article reviews the treatment of patients with syncope according to the different causes.

REFLEX SYNCOPE

Reflex syncope (RS) traditionally refers to a heterogeneous group of conditions in which cardiovascular reflexes that are normally useful in controlling the circulation become intermittently inappropriate in response to a trigger, resulting in vasodilatation and/or bradycardia and thereby in a decrease in arterial blood pressure and global cerebral perfusion.[1] The timing, contribution, and magnitude of these 2 components, hypotension and bradycardia, vary from one patient to another, and sometimes from one episode to another in the same patient (Fig. 1).

A reflex mechanism is the most common cause of syncope in the general population with a high incidence in the young population.[8,9] Most patients with RS have occasional episodes, usually triggered by some recognizable circumstances, and preceded by prodromal symptoms; however, some patients have frequent recurrences, sometimes without previous prodromal symptoms, which can lead to injury and severe impairment of their quality of life.

In patients with RS, the therapeutic strategy ranges from counseling, only to the possibility of implanting a pacemaker (Table 2). Most patients with RS are young without any other comorbidity[8,9] and syncope episodes tend to occur in clusters with several recurrences during a period of time followed by long asymptomatic periods or event complete remission; consequently, caution is advised before implementing aggressive treatments.[10]

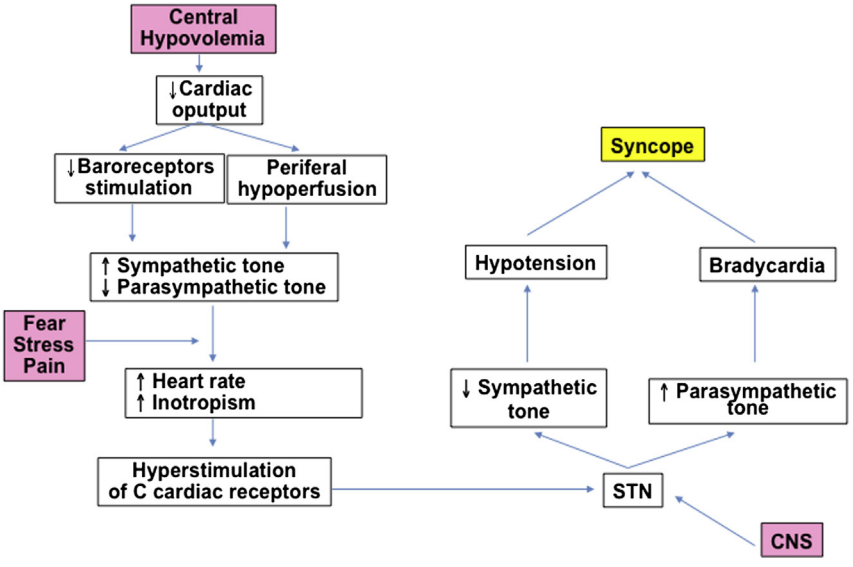

Fig. 1. Syncope pathophysiology. CNS, central nervous system; STN, solitary tract nucleus.