Initial Clinical Evaluation

Paolo Alboni*, Paola Coppola, Nicola Stucci, MD

KEYWORDS

• Cataplexy • Epilepsy • Fall • Psychogenic pseudosyncope • Syncope • Transient ischemic attack

KEY POINTS

- Syncope is a transient loss of consciousness (LOC) caused by global cerebral hypoperfusion; unfortunately, there are no signs or symptoms specific for this hypoperfusion.
- The initial evaluation of patients with transient LOC comprises a detailed medical history, physical examination, and 12-lead electrocardiogram.
- Because there are many causes of syncopal and nonsyncopal LOC, an adequate method of taking the clinical history, which is the cornerstone of diagnosing patients with transient LOC, should be used.
- The first question to answer is whether the patient has had a real LOC; events with similar features, such as falls, drop-attack, and so forth, should therefore be excluded.
- After a transient LOC has been diagnosed, one should try to exclude a nonsyncopal LOC. After syncope has been diagnosed, one should try to define the cause.

Syncope is a transient loss of consciousness (LOC) caused by transient cerebral hypoperfusion characterized by rapid onset, short duration, and spontaneous complete recovery.[1] There are several causes of syncope, which are reported in Moya and colleagues,[1] and are also discussed elsewhere in this issue. Unfortunately, there are no signs or symptoms specific of such hypoperfusion and there are other conditions that resemble syncope (ie, may produce or appear to produce transient LOC) but are not caused by a generalized reduction in cerebral blood flow. These conditions, which are reported in **Box 1**, must be considered in the differential diagnosis.

The initial diagnostic approach to patients with transient LOC comprises a detailed medical history (incorporating documentation of witness accounts); a through physical examination (including supine and standing blood pressure measurement); and 12-lead electrocardiogram. Other tests, including basic laboratory tests, are usually not indicated in the initial evaluation of patients with syncope.[1] The history and physical examination are the core and the work-up for patients with transient LOC. They are able to define the cause of transient LOC in about 20% of patients, obviating the need for further evaluation and enabling treatment to be instituted; in 60% of patients they do not enable a definite diagnosis to be made, but suggest some causes and, therefore, specific examinations.[2] Because there are many causes of transient LOC, an adequate method of taking the clinical history should be used (**Fig. 1**). **Box 2** lists some of the most important questions that must be answered when the patient's history is taken.

WAS LOC COMPLETE?

The first question to answer is whether the patient has had a true LOC, which is characterized by loss of postural control and unresponsiveness to external stimuli, particularly acoustic. If there are witnesses, the question can generally be answered; if, however, the patient is alone, the diagnosis can be difficult, if not impossible. A state of altered consciousness and, above all, a fall

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Syncope Unit, Section of Cardiology, Department of Medicine, Ospedale Privato Quisisana, Viale Cavour 128, Ferrara 44121, Italy
* Corresponding author.
E-mail address: alboni.cardiologia@gmail.com

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Box 1
Disorders with complete or partial loss of consciousness not caused by global cerebral hypoperfusion

Disorders with complete LOC

Epilepsy

Vertebrobasilar TIA

Metabolic disorders: hypoglycemia, hypoxia

Disorders without impairment of consciousness

Psychogenic pseudosyncope

Cataplexy

Abbreviations: LOC, loss of consciousness; TIA, transient ischemic attack.

From Moya A, Sutton R, Ammirati F, et al. The Task Force for the Diagnosis and Management of Syncope of the European Society of Cardiology (ESC) Guidelines for the diagnosis and management of syncope (version 2009). Eur Heart J 2009;30:2631–71; with permission.

including a drop-attack must be considered in the differential diagnosis. Falls are more frequent in the elderly. Many falls can be attributed to an environmental cause, such as accidental collisions, slips, or trips. These extrinsic falls require a very different approach from falls associated with LOC. Other falls are caused by an underlying balance disorder; such intrinsic falls typically occur during weight shifts or turning movements. These spontaneous falls are easily mistaken for those caused by LOC. In this regard, it has recently been demonstrated that about 25% of patients suffer retrograde amnesia after tilt-induced or carotid sinus massage-induced syncope.[3,4] The prevalence of retrograde amnesia after spontaneous syncope is not known; however, many of the falls that are defined by the patient as accidental may be caused by LOC, which the patient is not able to remember because of retrograde amnesia. For this reason, to make a differential diagnosis it is not useful to ask the patient "were you unconsciousness?"; rather, patients should

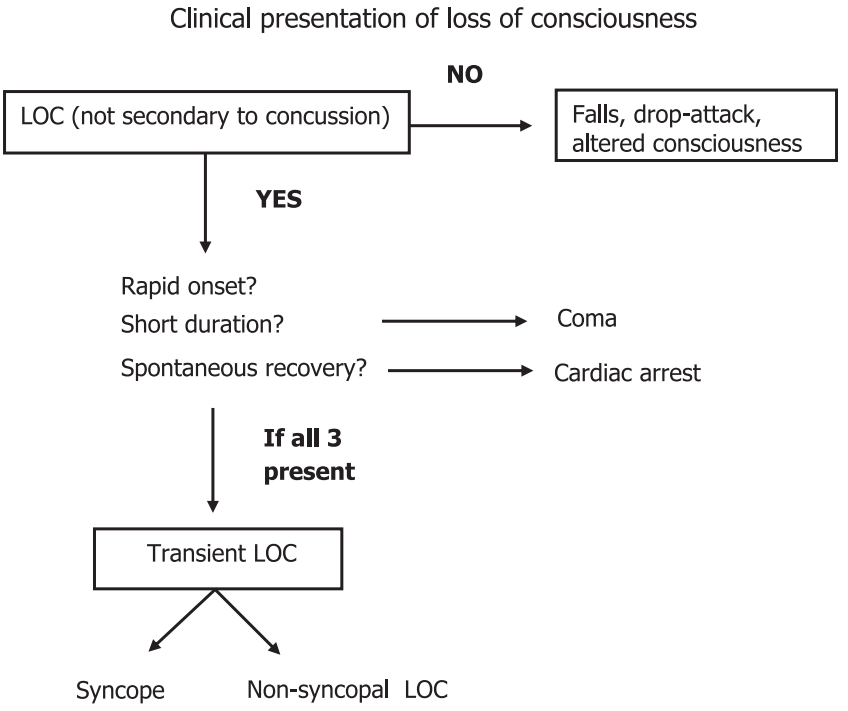

Fig. 1. Method to be used in taking clinical history. The first question to answer is whether the patient has had a real loss of consciousness; therefore, events with similar clinical features, such as falls, drop-attack, and so forth, should be ruled out. After a loss of consciousness has been diagnosed, the presence of the three features defining the presentation of transient loss of consciousness (rapid onset, short duration, spontaneous recovery) should be investigated. If one is dealing with a transient loss of consciousness, a differential diagnosis between syncope and nonsyncopal loss of consciousness should be made. After syncope has been diagnosed, one should define the cause. LOC, loss of consciousness. (*Data from* Moya A, Sutton R, Ammirati F, et al. The Task Force for the Diagnosis and Management of Syncope of the European Society of Cardiology (ESC) Guidelines for the diagnosis and management of syncope (version 2009). Eur Heart J 2009;30:2631–71.)