Transient loss of consciousness: an ongoing challenge

Panos E. Vardas* and Emmanuel N. Simantirakis

Department of Cardiology, Heraklion University Hospital, PO Box 1352 Stavriakia, Heraklion, Crete 711 10, Greece

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Transient loss of consciousness (T-LOC) is a common clinical entity that affects patients and engrosses physicians and national healthcare systems. As a symptom, whether syncopal or non-syncopal, T-LOC may lead to physical injury, while reducing patient’s self-confidence because of its sporadic and sometimes unpredictable nature. The elucidation of the mechanism and prognostic significance of T-LOC is a challenge for physicians as opposed to the investigation of other symptoms of cardiovascular origin, like chest pain or dyspnoea. From the financial point of view, increased hospitalization rates and the cost of diagnostic tests that are sometimes overused in search for the real cause often make the management of syncope an expensive procedure.

Recently, the European Society of Cardiology (ESC) guidelines have made a significant contribution not only to correctly diagnosing T-LOC, but also to defining the risk stratification procedure and management of these patients. The precise definitions of syncopal and of non-syncopal T-LOC that are incorporated in these guidelines assist the clinician and increase the possibility of making the correct diagnosis by taking a comprehensive medical history, even though patients are sometimes unable to give detailed information about the event they have suffered. Furthermore, algorithms incorporated in the guidelines may help physicians to estimate the patient risk for sudden cardiac death and contribute to the correct decision-making, concerning which patient should be hospitalized or referred to the outpatient clinic for further evaluation and management.

To what degree are guidelines implemented in daily clinical practice? The Spanish study published focuses on this topic and provides much information with practical implications. Apart from the valuable epidemiological data on patients admitted to the emergency departments (EDs) for T-LOC that are described, the study provides important data about the management of syncope and adherence to the relevant guidelines in Spain. The authors make an interesting comparison between the diagnostic approaches in EDs of hospitals included in public healthcare system as opposed to those based on the ESC guidelines. The study revealed a 16% discordance between steering committee physicians (who base their diagnoses on the ESC guidelines published in 2001) and ED physicians, regarding the distinction between syncope from other causes of T-LOC. The authors stated that their results indicate that physicians need clear, practical, and accurate definitions to achieve accurate diagnosis. We believe that the guidelines recently developed by EHRA in collaboration with HFA and HRS could contribute significantly. Furthermore, the authors indicated that the selection of a diagnostic test was significantly different from that proposed by guidelines. As also supported by previous observations, it seems that tests with a low diagnostic yield such as X-rays or computed tomography (CT) scans are overused, whereas others like carotid sinus massage are underused. In a single-centre study which evaluated the applicability and the clinical impact of the ESC guideline recommendations for hospital admission, the authors concluded that although the adherence to guidelines in the ED was acceptable, better implementation strategies were needed. In another multi-centre prospective controlled study, it was found that a standardized care pathway in strict adherence to the recommendations of the ESC guidelines reduced the hospitalization rate, shortened in-hospital stay, and led to fewer tests performed per patient when compared with usual care. Importantly, the mean costs per patient and per diagnosis were significantly lower. Similarly, the management of syncopal patients was significantly improved in hospitals with syncope management units (SMU). Patient evaluation is particularly facilitated in such units, in which the patient can undergo syncope-specific tests, including the tilt test, carotid sinus massage, rhythm monitoring, etc. Electrophysiological and/or neurological consultations can also form part of the evaluation. In an Italian study by Brignole et al., it was found that the management of patients with syncope referred to hospitals with SMU

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* Corresponding author. Tel: +30 2810 395305; fax: +30 2810 542055, Email: cardio@med.uoc.gr

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adhering to the ESC guidelines was more effective than in hospitals without SMU. In the former, 12% fewer patients were hospitalized and 8% fewer tests were performed. Patients underwent carotid sinus massage and tilt tests more frequently than echocardiograms or CT scans. The results of the SEEDS trial6 in North America are similar and have shown that SMU improved the diagnostic yield in the ED and reduced hospital admission without adversely affecting clinical outcomes. In spite of the above findings which clearly show the superiority of SMU regarding the efficiency and cost-effectiveness in the management of syncope, SMU are not common in most hospitals in Europe and North America. It would seem that more convincing data regarding the cost to benefit ratio are needed to convince health providers of the need to develop such units, either in all hospitals or selected centres.

In conclusion, this and previous studies indicate that although the management of syncope in EDs is generally acceptable, it may be further improved. An increased adherence to the guidelines and the development of SMU will certainly make a significant contribution, not only conceptually but also in clinical practice.

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