Syncope Evaluation at a Crossroad
For Which Patients?

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Sympathetic is one of the most common, alarming, and challenging symptoms with which cardiologists, and most other physicians, grapple. It can cause injury and disability, affect lifestyle and quality-of-life, and be an expensive management nightmare. Causes range from isolated, benign, situational, and “dysautonomic” events to life-threatening ventricular arrhythmias.

A thoughtful history and complete physical examination, performed by an astute clinician, will provide diagnostic clues to guide management. Unfortunately, the approach often undertaken includes low-yield testing (EEG, CT scan, carotid Dopplers, Holter monitor, and cardiac enzymes), yet even “proper” testing (electrophysiology testing and tilt table testing) can be fruitless. In nearly half of all patients, no diagnosis is secured. Although an implantable loop recorder (ILR) may be useful when all else fails, no randomized trial has provided evidence that it is the best initial approach when the history does not provide a diagnosis...until now.

Krahn et al report the first prospective, randomized trial of the ILR as the initial approach when the cause for syncope could not be gleaned from a circumspect evaluation. They address an important clinical problem and provide new insight into methods to assess syncope. The best way to identify the cause is to monitor the episode. The ILR can do just that: it can provide a diagnosis efficiently, apparently safely, and correctly, but this approach does not yet revolutionize syncope management.

Patient selection criteria are crucial. The study impact depends on who is enrolled, but this criterion remains obscure; those included were referred and selected. Consider the risk, expense, and time required to implant an ILR is unwarranted in patients with a low risk for recurrence and for those whose syncope is benign (eg, situational and neurocardiogenic syncope). The history is key, but neurocardiogenic mechanisms can trigger syncope, even when the cause is obscure. A tilt table test may help exclude these low-risk patients before implanting an ILR.

The extraordinarily low recurrence rate of syncope in a substantial segment of the patients with a negative diagnostic evaluation suggests that (1) these patents may not require an aggressive assessment (perhaps there is a way to exclude such patients); (2) those with a positive evaluation had a treatment that exacerbated or did not treat their syncope; (3) neither approach was capable of arriving at all diagnoses in the time allotted; and/or (4) the diagnosis of syncope is incorrect.

A role for the ILR in syncope evaluation exists, but for which patients? One crossroad in syncope evaluation has arrived. Others roads must be crossed. Carefully controlled, clinical trials clearly enunciating the population will define the exact role of ILR. A device that can measure heart rate and hemodynamic response would be more accurate to define the cause and mechanism for syncope. Even better would be a device that measures these parameters along with an electroencephalogram, cerebral blood flow, and hormonal and blood sugar changes. The future, perhaps, this will be possible.
References

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