

Utility of **event loop recorders** for the management of arrhythmias in young ambulatory patients

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Abstract

We evaluated the diagnostic yield of **event loop recorders** in ambulatory patients referred for palpitations, dizziness or syncopal events and in whom a previous Holter recording was not diagnostic.

A total of 96 patients were studied, 50 (52%) were men and 46 (48%) were women with a mean age of 37 ± 10 years. Mean duration of the recording was 5.2 ± 2.3 days. During the recording period, 24 of the 96 patients (25%) remained asymptomatic. Automatic recordings revealed significant arrhythmias in four (16.7%) patients, which included two (8.3%) cases of atrial fibrillation, one (4.2%) non-sustained ventricular tachycardia (VT) and one (4.2%) second degree atrio-ventricular (AV) block. The manual function of the recorder was used by 72 (75%) patients while they were symptomatic. Palpitations were the most common symptom, which corresponded most frequently to normal sinus rhythm (43.1%), followed by sinus tachycardia (16.7%). An arrhythmic substrate was found in 29 (40.3%) patients, including 13 (18.1%) with isolated ectopic beats of supraventricular and/or ventricular origin, 14 (19.4%) with supraventricular tachycardia (SVT) and 2 (2.8%) with second degree AV block.

The data of our study showed that the ambulatory use of an **event loop** recorder in young patients during a mean period of 5 days was highly useful to elucidate the potential cause of their symptoms. The particular use of the manually triggered function during symptoms allowed to establish a clear correlation between symptoms and arrhythmic events including sinus tachycardia in 75% of patients.

Keywords: Cardiac arrhythmias, Young patients, Event loop recording, Automatic recording, Manually triggered events