

Arrhythmogenic syncope in a “neurologic” patient. The need for a multidisciplinary approach

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An 81-year-old female patient was admitted to the emergency department because of recurrent episodes of loss of consciousness and seizures. Based on her history of ischaemic stroke and hypertension, she was examined by a neurologist. Urgent cerebral computed tomography was performed and the occurrence of a haemorrhagic event was excluded. During cardiologic consultation, an electrocardiogram in sinus rhythm with bifascicular heart block (right bundle branch and left anterior hemiblock) was recorded, while cardiac auscultation, chest X-ray and biochemical markers revealed no significant findings.

The patient was hospitalized in the neurology department, where at least three new episodes oc-

curred in the following two days. Rest and provocative electroencephalogram were performed, and no pathologic waves were recorded. The neurologists, thereafter, asked for a second cardiac consultation. Echocardiographic findings were not indicative of cardiogenic syncope. A 24-hour ECG Holter was also performed. During ambulatory ECG recording, a new episode of seizures was documented by nursing staff while the patient was sleeping. Holter analysis revealed episodes of ventricular asystole, complete AV block with slow escape ventricular rhythm, and self-terminated torsade de pointes (Fig. 1), which chronically coincide with the aforementioned event. Although exaggerated bradycardia may accompany an epileptic seizure [1],

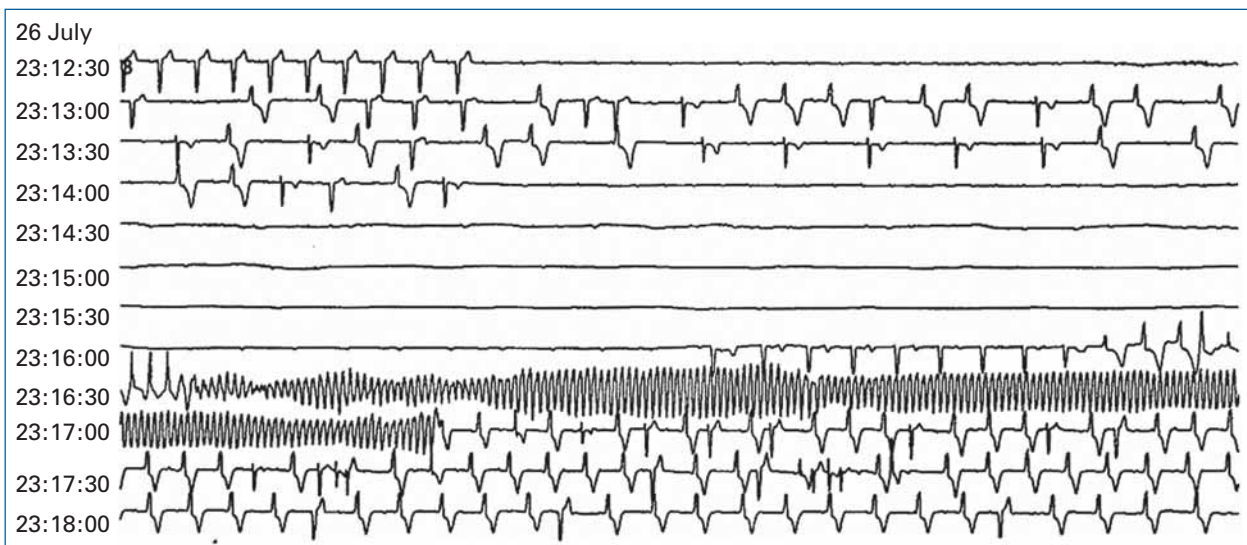


Figure 1. A 24-h ambulatory ECG recording showing ventricular asystole, complete atrioventricular block with low escape ventricular rhythm and self-terminated torsade de pointes, with concomitant loss of consciousness.

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this is not the case in our patient. Accordingly, arrhythmogenic syncope was diagnosed and a dual chamber pacemaker was implanted. During 12-month follow-up, the patient remained asymptomatic.

This manuscript has been entitled a “case report” not because of its rarity, but in order to underline the need for the close cooperation of different medical specialists for the optimal evaluation and management of syncope.

In the clinical setting of syncope, an abnormal ECG may be indicative of cardiac etiology, mainly of arrhythmogenic origin. In addition, it has been reported that any abnormality of baseline ECG represents an independent predictor of cardiac syncope or increased mortality, thus underscoring the need for thorough investigation of cardiac causes in such patients.

Currently, assessment strategies for syncope differ significantly among physicians as well as among medical departments and hospitals [2]. As a consequence, a broad variance in the frequency of applicable diagnostic tests exists. This explains why the proportion of all the possible causes of syncope varies even among the most specialized centres, including unexplained syncope, the prevalence of which significantly differs in the literature [3]. In order to optimize the diagnostic accuracy of synco-

pe evaluation and consequently the applicable medical services, in combination with a decrement of cost [4], there is a catholic agreement that a syncope unit should be organized, at least in every reference centre [5]. In general, the appropriate and responsible personnel for such a unit would include at least a cardiologist, a neurologist, a general practitioner and a psychiatrist, all of them trained in the management of syncope.

References

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