

Ropinirole Induced Sinus Pause - A Rare Side Effect

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Abstract

While sinus pause is frequently a benign finding in adults, commonly occurring during sleep, sometimes it can be abnormal. We present a case of symptomatic sinus pause in the setting of increasing doses of ropinirole. To our knowledge, this is the second case reported in the literature.

Keywords

Cardiovascular disease, sinus pause, syncope, electrocardiogram.

Key Clinical Message

The most common cause of sinus pause is heart disease but medications can also cause symptomatic sinus pause. Ropinirole is one such medication which should be considered when other etiologies have been ruled out.

Case

An 82-year-old man presented with progressively worsening syncopal events of 6 months duration. The physical examination was unremarkable and so was his initial electrocardiogram (EKG). His 24-hour EKG and Echocardiogram was normal and 2 weeks later, his loop recorder revealed sinus pauses lasting 6 seconds and 11 seconds, corresponding to his symptoms (Figures 1 and 2). He was later found to have been taking increasing doses of ropinirole, which was prescribed for his restless leg syndrome, and was suspected to be the causal factor. Occasionally, he was taking doses of up to 4-5mg/day. Patient underwent a permanent pacemaker (PPM) implantation and was asymptomatic at the time of follow up. There has been only one case reported in the literature of such occurrence where the patient did not require a PPM implantation [1].

Clinical Question:

What is the management of symptomatic sinus pause?

Patients with symptomatic sinus pauses usually have some underlying heart disease which is generally the causal factor. In some cases, various drugs can also cause such episodes which can be life threatening. Treatment usually consists of discontinuation of the offending drug but often requires the placement of a permanent pacemaker [2].

Author Contribution

A.B. and V.G. were involved in direct patient care. A.M. and A.B. wrote the initial manuscript and were involved in collecting clinical images. The manuscript was proof-read and critically revised by V.G.. All the authors agreed and approved the final manuscript. No financial or material support was sought from any third party.

Conflict of Interest Statement

None Declared

References:

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2. Epstein AE, DiMarco JP, Ellenbogen KA, Estes NAM, Freedman RA, Gettes LS, et al. ACC/AHA/HRS 2008 Guidelines for Device-Based Therapy of Cardiac Rhythm Abnormalities. Heart Rhythm. 2008.

Figure 1: Rhythm strip. Red arrow indicating an 11-second sinus pause.

Figure 2: Loop recorder. Black arrow indicates a sinus pause of 6 seconds.

