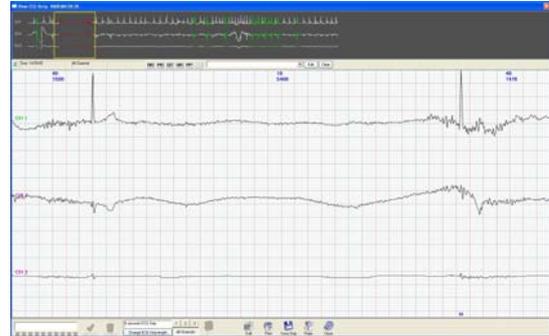


## Sotalol and sinus arrest; an unreported side effect in children resulting in presyncope

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**Figure legend:** Fig. 1 Electrocardiographic recordings during presyncope showed 5.4-minute sinus arrest

**Introduction:** Sotalol, a class III antiarrhythmic drug with nonselective beta- blocker properties, is widely used in treatment of supraventricular and ventricular tachycardias in children. Its side effects are mostly related to prolongation in QT interval. Sinus arrest during sotalol treatment in standard doses had not previously been reported. In this paper we report an adolescent who developed presyncope due to sinus arrest during sotalol treatment.

**Case report:** A 14 years old girl was admitted with the complaints of chest pain and palpitation. She was taking sotalol (2X80 mg) for the frequent ventricular premature contraction (VPC) for the last one month. Due to the increase in frequency of palpitations she was admitted to our clinic. Medical history was normal; nevertheless family history revealed that his 17- year-old brother was taking antiepileptic drug for seizures. Physical examination was normal, blood pressure was 110/70 mmHg, heart rate was 61 bpm and respiratory rate was 16/minute. Serum electrolyte levels, complete blood count, renal and thyroid functions and transaminase levels were normal. Echocardiographic evaluation was normal. Surface ECG was normal and QTc was measured as 0.40 ms. Holter monitorization was performed. During monitorization, she developed presyncope with sweating while sitting. Electrocardiographic recordings during presyncope showed 5.4-minute sinus arrest (figure 1). Additional 3-minute pauses were present. Also frequent VPCs with two triplets were detected. Sotalol was stopped, and daily 24-hour ECG monitorizations were repeated. No new event and pause were detected. During exercise test, VPCs disappeared after the heart rate of 110/bpm, and reappeared during recovery. During the following 5 months no new event occurred and repeated Holter monitorizations revealed only presence of uniform frequent VPCs.

**Conclusion:** Children who take sotalol, that is mostly known with its effects on cardiac repolarization, should also be carefully followed for sinus arrest that can result in presyncope/syncope. This side effect had not been reported in children previously.