

Sinus Arrest due to Sertraline

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ABSTRACT

Sertraline is a selective serotonin reuptake inhibitor with established safety for the treatment of depression. Among the common adverse effects associated with sertraline are nausea, insomnia, diarrhea, somnolence, and dizziness. Cardiac arrest had not been reported in the literature, although tachycardia was frequently seen. In this case report, a patient was presented who had adverse reactions such as nausea, dizziness, insomnia under citalopram treatment, and after his drug was changed to sertraline, developed sinus arrest on the fourth day of treatment.

Introduction

Sertraline is a selective serotonin reuptake inhibitor (SSRI) with established safety and efficacy for depression treatment. Common adverse effects associated with sertraline are nausea, insomnia, diarrhea, somnolence, and dizziness. Sinus arrest had not been reported in the literature, although tachycardia was frequently seen.¹

In this Case Report, a patient was presented who had adverse reactions such as nausea, dizziness, and insomnia under citalopram treatment, and after his drug was changed to sertraline, developed sinus arrest on the fourth day of the treatment.

Case Report

A 50-year-old male patient, who did not have a sinus disorder, was admitted to the emergency department with syncope. His medical history showed that he has been treated with 10 mg/day of citalopram for 1 month for depression and after he developed adverse reactions such as nausea, dizziness, and insomnia under citalopram, his treatment was changed to 50 mg/day of sertraline. He developed syncope on the fourth day of sertraline therapy. He did not use any illegal or natural drugs. His body mass index was 26 kg/m² (170 cm tall and weighing 74 kg) and had no history for apnea during sleep. His physical examination was found to be normal and he was monitored in the intensive care unit. Sinus arrest was observed 5 times with the absence of consciousness for 5 seconds during monitoring on the first day of admission (Figure 1). Complete blood counts, biochemical investigations, thyroid function tests, and echocardiographic investigation were found normal. Basic sinus rhythm was observed on ECG and a Holter monitor was applied for 48 hours. Holter investigation was normal (corrected QT interval: 0.38, PR interval: 0.14, and QRS duration: 0.08). Coronary

angiography, electrophysiological investigation, and head-up tilt testing were found normal. Electrophysiological investigation showed that basal intracardiac intervals were normal (Atria-His interval: 78 msn, His-ventricle interval: 54 msn) and sinus node recovery time was under 300 msn. He was observed in the intensive care unit for 10 days and he did not have another syncope attack. Although we could not investigate the blood level of the drug because of technical reasons, we thought that the first day syncope attack might be related to the sertraline therapy. Because of this, a permanent pacemaker was not implanted. He has been followed-up at the outpatient clinic.

Discussion

Sertraline appears to have less cardiac effect, although there is a Case Report presenting a sudden death under sertraline and clozapine.² Sinus asystole was rarely reported under sertraline treatment in the literature, although infrequent syncope, hypotension, and tachycardia were observed.¹ Lenk et al³ reported 2 cases who had had recurrent syncope attacks under sertraline therapy and developed asystole during head-up tilt testing.

The mechanism of action of citalopram as an antidepressant is a highly SSRI with minimal effects on noradrenaline and dopamine. Elimination of citalopram is mainly hepatic, with a mean half-life of about 35 hours.⁴ Literature reports showed that a sinus arrest might rarely develop.¹

The Naranjo nomogram was designed to evaluate single-drug adverse events for the assessment of a potential drug interaction. For potential drug-drug interactions, the Drug Interaction Probability Scale was developed.⁵ The Naranjo Adverse Drug Reaction (ADR) Probability Scale⁶ indicated a "probable" relationship between the adverse effect (sinus arrest) and sertraline therapy in this patient, whereas the Drug Interaction Probability Scale⁵ indicated a "possible"

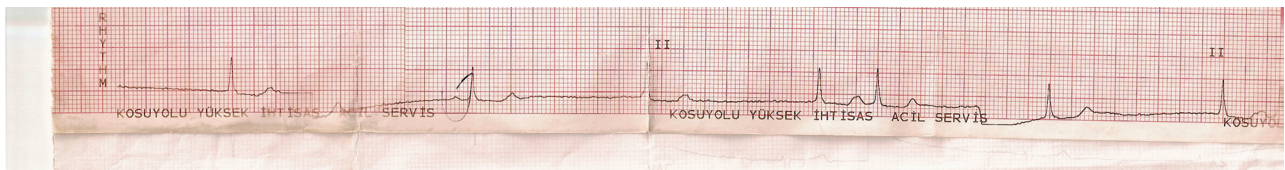


Figure 1. The electrocardiogram showed sinus arrest.

relationship between the citalopram and sertraline therapy. In addition to this, no interaction was found between sertraline and citalopram in the Medline review. There are a limited number of controlled experiences regarding the optimal timing of switching from other drugs to sertraline. The duration of an appropriate wash-out period switching from one SSRI to another has not been established.⁷

In conclusion, we would like to draw attention to sinus arrest during sertraline therapy and would also like to emphasize that if switching from one SSRI to another has been planned, the elimination of the first drug should be complete before starting therapy with a new drug.

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