



## EDİTÖRE MEKTUP/LETTER TO THE EDITOR

### Atrial fibrillation during cesarean section in a term pregnant

Sezaryen sırasında gelişen atrial fibrilasyon

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*Cukurova Medical Journal 2016;41(Suppl 1):112-113.*

Dear Editor,

Atrial fibrillation is one of the most frequently seen cardiac arrhythmia in clinical practice<sup>1</sup>. Intraoperatively, it mostly occurs during major cardiovascular surgeries. Much cardiac pathology can occur or existing cardiac diseases aggravate due to the altered hormonal balance and increased volume load during pregnancy. However, atrial fibrillation developing during pregnancy is quite rare. We present our approach to the atrial fibrillation that developed during cesarean section operated to a patient who had no previous diagnosis of cardiac pathology.

We have reported a case with atrial fibrillation during cesarean section in a term pregnant. A 30-year-old pregnant woman who was G2P1 at her 36 weeks and 5 days presented to our outpatient clinic complaining about vaginal bleeding. A cardiologic consultation was obtained from the patient who had fibrillation complaints during her gestational monitoring in her history. She was suspected of sinus tachycardia and started oral iron therapy due to anemia from iron deficiency. Her obstetric ultrasound showed a single vital fetus compatible with her gestational week. Her cardiotocography was reactive and no contraction was observed. Uterine cervix was 33 mm in her transvaginal ultrasound. The patient was hospitalized in the clinic. At observational day 3, a cesarean section was performed due to decreased infant movement, cardiotocography not being reactive, decreased amniotic fluid, and previous cesarean indication. During peritoneum closure at cesarean section,

sudden shortness of breath and palpitation occurred in the patient who was administered spinal anesthesia. As the heart rate went up to 198 in the cardiac monitor, the patient was suspected of having atrial fibrillation with high ventricular response (Figure 1). She was then administered intraoperative Metoprolol Tartarat (Beloc® 5 mg ampoule) and Amiodaron HCl (Cordarone® 150 mg ampoule). When the patient's current cardiac condition continued despite the medical treatment, cardioversion was administered with 50 Joule. The patient returned to sinus rhythm after this procedure (Figure 2). She was then started prophylactic Enoxaparin Sodium (Clexane 4000 Anti-XA® IU/0,4 IM) treatment. She was discharged after having been monitored 24 hours at the intensive care and 4 days in our clinic.

During pregnancy, arrhythmia associated with increased estrogen and human gonadotropin levels, volume load, catecholamine concentration and adrenergic receptor sensitivity can be seen more often. The most frequent symptoms are palpitation, shortness of breath and syncope. Although rarely, atrial fibrillation may occur during pregnancy secondary to congenital cardiac pathologies, rheumatic heart diseases, hypertrophic cardiomyopathies, and thyroidal function disorders<sup>2</sup>. Pulmonary edema, tachycardia, stroke and sudden death may occur due to chronic atrial fibrillation<sup>3</sup>. Calcium canal blockers, Adenosine monophosphate, and B-blocker agents can be used for its treatment; cardioversion can be given a chance in resistant cases<sup>4</sup>. Prophylactic anticoagulant therapy is recommended for prevention of possible

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Geliş tarihi/Received: 19.04.2016 Kabul tarihi/Accepted: 02.05.2016

thromboembolism<sup>5</sup>. We have not encountered any case of atrial fibrillation developing during cesarean section in the literature and no ideal approach could be established. We first tried medical treatment for our patient, but when we could not obtain any response, we administered cardioversion. Patients developing arrhythmia during cesarean section should be monitored in a multidisciplinary by a team of an anesthetist, obstetrician, and a cardiologist.

Parents should be informed for the nourishment of the baby according to the breastfeeding category of the antiarrhythmic drugs being used. The patient should be observed on the cardiac monitor for at least 24 postoperative hours and should be hospitalized for at least 72 hours. Prophylactic anticoagulant therapy must be administered. Furthermore, the patient should be informed about possible cardiac risks during her future pregnancies.

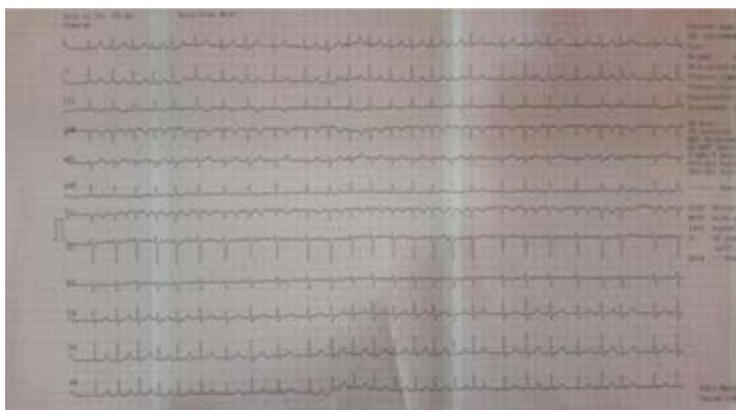


Figure 1. Atrial fibrillation with high ventricular response.



Figure 2. Normal sinus rhythm after treatment.

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