

# Cardioversion - a successful treatment modality in fatal propafenone poisoning

 Daniela Lončar\*

University Clinical Center  
Tuzla, Tuzla, Bosnia and  
Herzegovina

**KEYWORDS:** propafenone, cardioversion, QRS complex.

**CITATION:** *Cardiol Croat.* 2024;19(11-12):546. | <https://doi.org/10.15836/ccar2024.546>

**\*ADDRESS FOR CORRESPONDENCE:** Daniela Lončar, Javna zdravstvena ustanova Univerzitetski klinički centar Tuzla, Trnovac bb, 75000 Tuzla, Bosnia and Herzegovina. / Phone: +38763692540 / E-mail: [danielamati@yahoo.com](mailto:danielamati@yahoo.com)

**ORCID:** Daniela Lončar, <https://orcid.org/0000-0003-1496-9309>

Propafenone is a drug that is most commonly used in medicine for the prevention of supraventricular tachycardias, such as atrial fibrillation. It belongs to the Class IC class antiarrhythmics. Propafenone is well resorbed from the gastrointestinal tract (about 95%), but the bioavailability is low, only 12%. Almost all drug metabolism takes place in the liver, and in the bloodstream 95% of the drug is bound to plasma proteins, which is why hemodiafiltration has no effect in the treatment of possible overdose. The initial dose that clinicians prescribe to patients is generally 150 mg of the drug, two to three times a day, while the maximum dose would be twice as high. The drug is switched off if the QRS complex on the ECG expands by more than 20% compared to the original state. In literature we found, about 60 cases of propafenone poisoning were described.<sup>1</sup> One retrospective study found that propafenone overdose mortality was 23%. Due to the strong binding to plasma proteins (> 95%) and the large volume of distribution, hemodialysis is not effective. In addition, to general emergency measures, it is necessary to monitor the vital indicators of patients in the intensive care unit. Defibrillation, as well as dopamine and isoproterenol infusion, are effective for controlling heart rhythm and blood pressure.

**Case report:** 19-year-old female patient was treated at the Clinic for Internal Diseases due to intentional poisoning with propafenone tablets. The patient was hospitalized due to suicidal poisoning with propafenone tablets, and she drank 32 tablets. Upon admission to the Department of Intensive Care, cardiopulmonary resuscitation was immediately started due to pulseless cardiac activity and dyspnea, as well as bizarre QRS complexes on the ECG monitor, which is interpreted as a proarrhythmic effect. During resuscitation, the patient received several ampoules of adrenalin and atropine, and electroconversion was performed about 30 times due to ventricular fibrillation. Over the next two days, the clinical condition gradually stabilizes, after which the patient becomes agitated and states that she will attempt suicide again, and a psychiatrist is consulted and a transfer to the Psychiatric Clinic is indicated.

**RECEIVED:**  
September 14, 2024

**ACCEPTED:**  
October 31, 2024



## LITERATURE

1. Li J, Shi J, Jia C, Li W, Peng Y, Zheng J. Metabolic Activation and Cytotoxicity of Propafenone Mediated by CYP2D6. *Chem Res Toxicol.* 2022 May 16;35(5):829-839. <https://doi.org/10.1021/acs.chemrestox.2c00013>