

# Medical Expertise

"Development of the European Network in Orphan Cardiovascular Diseases"  
„Rozszerzenie Europejskiej Sieci Współpracy ds Sierocych Chorób Kardiologicznych”

---

**EXPERT: Associate Prof. Barbara Małecka,**  
**cardiologist**

**Affiliation:** *Department of Electrophysiology, John Paul II Hospital,  
Krakow, Poland*

## CASE SUMMARY

This opinion refers to an asymptomatic 31-year-old patient after cardiosurgical repair of congenital heart defect (Fallot Tetralogy). In 24-hour ECG Holter monitoring the following cardiac rhythm disorders were revealed: sinus bradycardia up to 37/min at night, sinus arrest up to 2759 ms, over 14 thousand per 24 hours ventricular extrasystoles and an episode of isorhythmic atrioventricular dissociation which was described in monitoring, however not presented in the form of ECG record. Pharmacotherapy was modified, but this did not lead to cessation of cardiac arrhythmias.

## DISCUSSION

In order to decide about treatment, it is necessary to confirm the type of cardiac rhythm disorders. Acquired atrioventricular block of III degree and II degree type 2 is class I indication to pacemaker implantation [1]. In the description of this patient ECG there appears an expression: “isorhythmic atrioventricular dissociation”, but **there is no** presentation of this record during discussion. If ventricular rhythm during atrioventricular dissociation does not fulfil criteria of escape rhythm, atrioventricular block of III degree cannot be diagnosed. Sick sinus syndrome (SSS) with sinus bradycardia and sinus arrest is an indication for pacemaker implantation if ECG record is accompanied by symptoms **– class IB [1]**. In symptomatic patients registration of cardiac arrest higher than 6 seconds with no references to symptoms is an indication to pacemaker implantation – class IIa C [1]. Pacemaker implantation can be considered - when there is a probability that sinus bradycardia caused the symptoms but evidence is inconclusive – **class IIb c [1]**. In asymptomatic patients with SSS pacemaker implantation is not recommended – class III [1].



## **EXPERT'S OPINION**

|Further follow-up, without pacemaker implantation. |

## **CONCLUSION**

|Periodic patient's examinations with Holter ECG monitoring. |

## **REFERENCES**

|Wytyczne ESC dotyczące stymulacji serca i terapii resynchronizującej w 2013 roku. Kardiol  
Pol 2013; tom 71Suplement V |