Abstract: P1575

Unusual indications for permanent cardiac pacing in children.

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Introduction: Decision about permanent cardiac pacing in children is frequently a serious challenge. This is especially true in difficult cases with rare diagnoses leading to prolonged asystoles.

Purpose: This work summarizes our experience with 4 children with highly unusual and rare diagnoses who required permanent pacing after complete diagnostic assessment.

Methods: In the period of 5 years (2013-2018) 34 pediatric patients underwent permanent pacemaker implantation. In 4 patients (pts) aged 12-36 months unusual bradycardic diagnoses were present: central hypoventilation apnoe, pallid breath-holding spells, paroxysmal extreme pain disorder and rare type of epilepsy. In all patients the respective diseases were associated with recurrent loss of consciousness (LoS), which clearly correlated with severe bradycardia and asystole.

Results: All 4 pts received a single chamber VVIR pacemaker with epicardial electrodes. The system was implanted via subxiphoideal approach with no complications. In one pt. symptoms completely resolved, in other 3 pts symptoms improvement was observed. In 2 pts concomitant drug therapy was necessary in order to achieve better clinical effect. Paroxysmal disturbances of consciousness continue to be present in one patient.

Conclusion: Episodes of LoC associated with significant bradycardia and/or asystole might be the part of complex clinical manifestation of several rare diseases. Permanent cardiac pacing might eliminate these symptoms in some but not all patients. Multidisciplinary team and management is necessary in the diagnostic and therapeutic approach in these patients.