The Clinical Significance of Rapid Atrial Pacing in Patients with Sick Sinus Syndrome

Yahalom, M
Western Galilee Hospital, Nahariya, Israel

Background
Sick Sinus Syndrome is one of the major indications for permanent pacemaker implantation.

Purpose
To evaluate the contribution of rapid atrial pacing in patients with Sick Sinus Syndrome to the clinical decision concerning permanent pacing and its category.

Methods
Sinus node recovery time was measured by the overdrive suppression technique in 21 patients having the clinical and electrocardiographic diagnosis of Sick Sinus Syndrome. Eleven patients were males and ten were females. Their ages ranged between 52 and 82 years. The average age was 68.

Seven had sinus bradycardia, five had sino-atrial block and nine had brady-tachycardia syndrome. The underlying disorders were: ischemic heart disease in 13 patients, cardiomyopathy in one, thyrotoxicosis in one and idiopathic in six patients.

Results
Sinus node recovery time was prolonged in ten patients, and normal in eleven. The indication for permanent pacemaker was based on clinical criteria only. Permanent pacing was required in 10 of the patients, 4 showing prolonged sinus node recovery time and 6 showing normal times. Among the patients not requiring permanent pacing, 4 showed prolonged times and 7 showed normal times.

Conclusion
While sinus node recovery time may contribute to the diagnosis of sino-atrial node dysfunction, it is not found to be helpful in estimating the severity of the clinical syndrome, defined by the requirement for pacemaker therapy.

However, by examining the atrio-ventricular conduction at time of implantation, rapid atrial pacing can contribute to the decision whether to implant an atrial Vs. dual-chamber pacemaker (with a dedicated algorithm) in places and areas that distinction is considered.