**Long-term pacemaker utilization in transplanted hearts: a single-center experience**

**Authors:** Tushar Sharma MBBS MPH, David Shin DO, Scott Lundgren DO MS, Brady Bulian DO, Faris Khan MD MS, Nidhish Tiwari MBBS, Niyada Naksuk MD, Jason Payne MD.

**Background:**

Permanent pacemaker (PPM) is required in a small proportion of patients after orthotopic heart transplantation (OHT). Long-term data about pacing requirements in these patients is needed.

**Methods:**

Consecutive patients undergoing OHT at a transplant center between January 2018 and August 2021 (n=277) were reviewed. 20 (7.2%) had PPM implanted after OHT. Their pacemaker interrogation reports were analyzed for an average follow up of 1278 days.

**Results:**

Out of 20 patients, 11 patients (55%) received PPM within 30 days (median 14 days after OHT; early phase). 73% had sinus node dysfunction (SND) and the rest had atrioventricular (AV) block. PPM was implanted in 9 (45%) patients after 30 days (median 541 days after OHT; late phase), 56% of whom had SND. Mean pacing percentage (MPP) in the cohort was 52% at first follow up (median 19 days after implant), 40% at 1-year follow up, and 44% at last follow up. Regardless of timing or etiology of PPM implantation, MPP was >=30% at last follow up. When divided into 2 categories: those requiring >=40% pacing (category A) and those requiring <40% pacing (category B), 16 (80%) patients stayed in the same category at their last follow up as their first. Of the remaining 4 patients, 2 went from category A to B, and 2 from category B to A.

**Conclusion:**

Permanent pacemakers implanted after >=2 weeks of OHT continue to be utilized over the long term in most patients. Early pacing requirement may predict long-term pacemaker utilization.

