“Stubborn right ventricle” - How did we overcome the challenge?

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Introduction: A 56-year-old patient without significant co-morbid disease was diagnosed to have symptomatic sinus node dysfunction and consented for a dual chamber pacemaker. He did not suffer from background ischaemic heart disease, ECHO assessment was normal with structurally normal heart, preop investigations showed normal electrolytes, calcium, and creatinine. Was not on any medication of significance.

Methods: Pre pectoral pocket creation and subclavian vein puncture was uneventful. During procedure RV lead was manipulated to multiple positions through the introducer sheath but failed to achieve pacing despite good sensing thresholds over 5mV. Lead, connector cable, programmer connections were adjusted but was in vain. Ultimately, we decided to insert a 5FR Temporary pacemaker wire through the subclavian vein access which was an innovative move. Due to its easier manoeuvrability, with lot of effort we found an atypical location near anterior free wall of RV where pacing is possible albeit with high amplitudes. Position fluorosaved and PPM lead parked in exact location and actively screwed. RA too was silent so we reverted to single chamber pacing.

Result: Immediate recovery was uneventful. Post PPM programming in 6 weeks showed improved pacing and sensing function and intact placement. Sensing was 12mV, pacing threshold 1.2V, and impedance 786 Ohms.

Conclusion: This is the first occasion we have faced an electrically silent Right ventricle endocardium. We managed to get over the problem with innovative strategy and flexible decision making. It is very rare to have a silent RV when there are no scars around. Cardiac MRI will be useful to screen any myocardial disease followed by myocardial biopsy if needed.