



AVEIR™ AR ATRIAL LEADLESS PACEMAKER CASE INSIGHTS



AT A GLANCE

A patient in her 60s with a history of sinus pauses and junctional bradycardia receives a successful transvenous extraction and the first reported atrial-only leadless pacemaker (LP) implant.

KEY TAKEAWAYS

- Atrial-only leadless pacing can be safely considered now that there is an option that is upgradeable, retrievable, and will not contribute to additional infection risk and lead- and pocket-related complications when compared with transvenous devices.^{2,3}
- For patients with sick sinus and intact AV conduction, this can be an attractive option, particularly since a ventricular device can be added later to create a leadless dual chamber pacing system.^{4,5}
- AVEIR AR Atrial LP as an effective AAI pacemaker opens up the patient population who may be candidates for leadless pacing and the inherent patient benefits.³

PATIENT DEMOGRAPHICS

A patient with a dual chamber transvenous pacemaker from the left subclavian to treat sinus node dysfunction presented with pain and swelling in her left upper extremity. Interrogation of her device demonstrated normal function with 55% atrial pacing and <1% ventricular pacing.

CHALLENGE

After successful venoplasty without removal of her pacing leads, there was temporary resolution of her symptoms and arm swelling. However, multiple reoccurrences of venous occlusion continued even after repeated treatment to the vessels, leading to debilitating symptoms and mobility limitations.

SOLUTION

Multiple options were taken into consideration for this patient. AVEIR AR Atrial LP has an active fixation mechanism that makes for a suitable device to be implanted in the right atrium. Due to the risk profile of this option, and since the patient only required atrial pacing, the physician elected to implant AVEIR AR Atrial LP as a stand-alone device.

Uncomplicated transvenous device extraction was performed, and the following day, a single chamber AVEIR AR Atrial LP was successfully implanted at the base of the right atrial appendage. Excellent test values were obtained, and the patient subsequently received additional treatment for the venous occlusion. She now paces 43% from the atrium and no longer experiences left arm swelling and pain.

TESTING NUMBERS

	MAPPING	FIXATION	POST-RELEASE	10 MIN	PRE-DISCHARGE	30-DAY FOLLOW-UP
THRESHOLD	2.0V @ 0.4ms	1.75V @ 0.4ms	1.25V @ 1.5ms	2.75V @ 0.2ms	0.5V @ 0.2ms	0.5V@0.4ms
IMPEDANCE	320 ohms	280 ohms	280 ohms	280 ohms	340 ohms	320 ohms
SENSING	1.3mV	<1mV	1.5mV	1.4mV	3.6mV	5.4mV

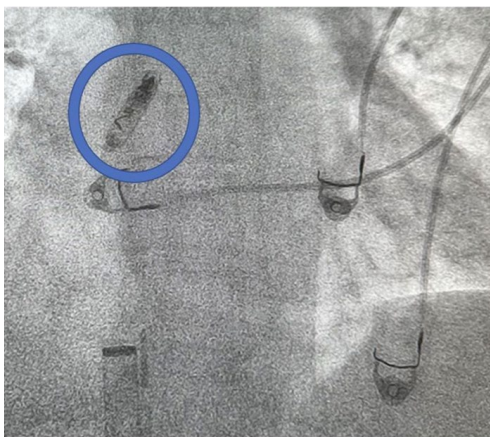
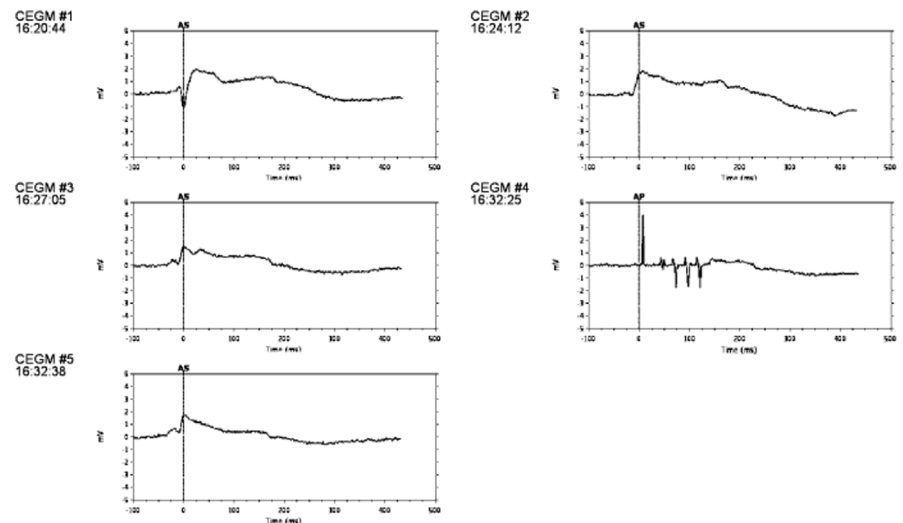


Figure 1. A fluoroscopic image in anterior-posterior projection of the leadless pacemaker (circled) demonstrates fixation of the device at the base of the right atrial appendage. Also shown is the intracardiac echo (ICE) catheter and delivery sheath in the inferior vena cava.¹

CURRENT OF INJURY (COI) AT IMPLANT



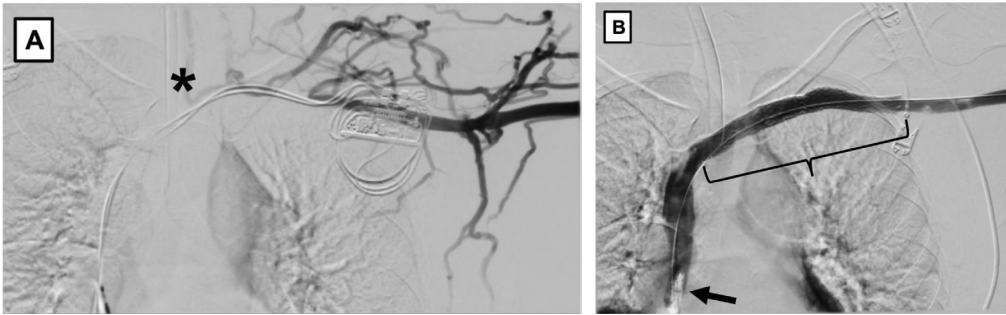


Figure 2. A. Long-segment venous occlusion (*) associated with dual chamber pacemaker transvenous leads is demonstrated by peripheral venography. B. Repeat venography following transvenous lead extraction, atrial leadless pacemaker placement (arrow), and repeat venoplasty and stent placement (bracket) demonstrate widely patent subclavian vein, brachiocephalic vein, and SVC.¹

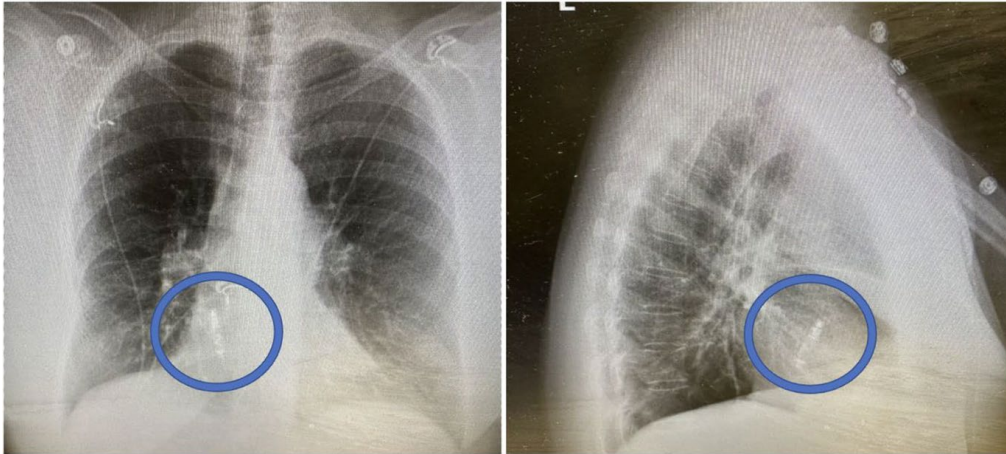
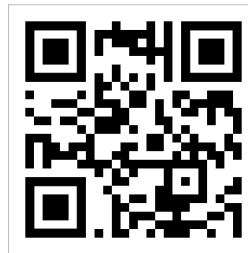


Figure 3. PA and lateral chest radiographs demonstrate the leadless pacemaker positioned at the base of the right atrial appendage.¹

NEXT STEPS



SCAN THE QR CODE
to learn more about the AVEIR AR Atrial LP and read recently published real-world evidence.



STAY INFORMED!
Scan the QR code to receive first access to the latest information and updates.

REFERENCES:

1. Sundaram, S., Alyesh, D., Walker, L. et al. The 1st implantation of an atrial only leadless pacemaker in right atrial appendage. *J Interv Card Electrophysiol* 66, 1955–1958 (2023). <https://doi.org/10.1007/s10840-023-01644-3>
2. Nielsen JC, Thomsen PEB, Højberg S, et al. A comparison of single-lead atrial pacing with dual-chamber pacing in sick sinus syndrome. *European heart journal*. 2011;32(6):686–696. doi:10.1093/eurheartj/ehr022
3. *The New England Journal of Medicine (NEJM)*, May 2023, www.nejm.org/doi/full/10.1056/NEJMoa2300080.
4. AVEIR™ DR FDA Approval
5. AVEIR™ Leadless Pacemakers and Delivery Catheter IFU, ARTEN600284235.

Rx Only
Brief Summary: Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use.

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