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Unexpected challenging case of coronary sinus lead extraction

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#### Abstract

An 84-year-old woman implanted with cardiac resynchronization therapy defibrillator (CRTD) underwent transvenous lead extraction (TLE) 4 months after the implant due to pocket infection. Atrial and right ventricular leads were easily extracted, while the attempt to remove the coronary sinus (CS) lead was unsuccessful. A few weeks later a new extraction procedure was performed in our center. A stepwise approach was used. Firstly, manual traction (MT) was unsuccessfully attempted, even with proper-sized locking stylet. Secondly, mechanical dilatation was used with a single inner sheath placed close to the CS ostium. Finally, a modified sub-selector sheath was successfully advanced over the electrode until it was free of the binding tissue. The post-extraction lead examination showed an unexpected fibrosis around the tip. No complications occurred during the postoperative course. Fibrous adhesions could be found in CS leads recently implanted requiring non-standard techniques for its transvenous extraction.

**Key words:** Cardiac resynchronization therapy; Coronary sinus lead; Transvenous lead extraction; Cardiac pacing; Fibrosis

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