Developing a crush: acute implantable cardioverter-defibrillator lead insulation break in a patient with multiple leads

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A 71-year-old man with ischaemic cardiomyopathy had a dual-chamber pacemaker inserted via the subclavian vein for complete heart block. He was pacing dependent. Nine years later, he was upgraded to a cardiac resynchronization defibrillator. Three new leads were implanted via the subclavian, and the old leads capped. Six weeks later, he presented with falls. Left arm elevation precipitated dizziness and ventricular standstill. The extracted defibrillator lead showed extensive insulation damage (see Figure). The old right ventricular and atrial leads were explanted, and a new defibrillator lead implanted. This case illustrates an acute crush injury in a physically inactive patient. The patient had five leads in his subclavian vein, which may contribute to lead compression; however, there is currently no strong evidence to extract abandoned leads. This patient was pacing dependent, hence became symptomatic during pacing inhibition due to oversensing. A defibrillator lead crush injury could have resulted in undersensing of ventricular fibrillation. Caution needs to be taken with using the subclavian route to place all leads, lead extraction may become necessary, and regular follow-up is necessary to minimize the potentially serious consequences of lead failure.

The full-length version of this report can be viewed at: http://www.escardio.org/communities/EHRA/publications/ep-case-reports/Documents/Developing-a-crush.pdf.

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