

# Pacemaker Twiddler Syndrome

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An 80-year-old woman presented to the emergency department with syncopal episodes and fatigue for several hours. The patient had a history of bradycardia-tachycardia syndrome after the placement of a pacemaker in 2003. The patient reported dizziness, nausea, and mild, nonexertional shortness of breath for several days. She denied intentionally manipulating her pacemaker. Plain film radiograph of her chest showed that the pulse generator header of her pacemaker had rotated, and the leads were coiled and retracted (image). Pacemaker twiddler syndrome was diagnosed. The patient was admitted to the hospital and underwent a surgical procedure to replace the leads. No complications occurred.

Twiddler's syndrome is caused by spontaneous, inadvertent, or deliberate manipulation of implantable devices resulting in lead dislodgement and permanent malfunction of the device.<sup>1</sup> Retraction of the electrodes may cause phrenic nerve stimulation resulting in diaphragmatic stimulation and a

sensation of abdominal pulsations.<sup>1</sup> Implantable cardioverter-defibrillators, spinal cord stimulators, and chemotherapy infusion pumps have been involved in cases of twiddler's syndrome.<sup>2</sup> Most cases are diagnosed within the first year of device implantation.<sup>3</sup> Elderly and obese patients may be at an increased risk for twiddler's syndrome because of loose subcutaneous tissue, which allows for easier rotation.<sup>3</sup> (doi:10.7556/jaoa.2017.066)

## References

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