Hazardous twiddling of a subpectoral internal cardioverter defibrillator

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A 72-year-old male presented with multiple inappropriate shocks 4 weeks post-implantation of a subpectoral dual chamber internal cardioverter defibrillator (ICD) with screw-in leads that were secured with sutures to the pectoral fascia. Chest X-ray showed retraction of both leads and lead-clustering nearby the can (Fig. 1, left panel) caused by a twiddler's syndrome. Device interrogation demonstrated atrial fibrillation on both leads and loss of capture with high impedance of the ventricular lead. The patient underwent ICD and lead extraction showing extensive lead twisting

(Fig. 1, right panel). The main causes of this rare and potentially fatal syndrome are device manipulation by the patient and oversized subcutaneous pockets [1, 2]. Our patient denied the former and is a rare case of a subpectoral-twiddler's syndrome. Other causes are obesity, mental disorders and advanced age. Symptoms are related to device dysfunction, including stimulation of extra-cardiac muscles. Recurrence may be prevented by thorough information, limitation of the pocket size and suturing of the can.

Fig. 1 Chest X-ray one day post ICD implantation (*upper left panels*) and four weeks post ICD implantation (*lower left panels*). Extraction of the ICD system (*right panel*)

References

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