

Allergic Dermatitis From a Defibrillator Vest

To the Editor:

Allergic contact dermatitis (ACD) caused by metal hypersensitivity is a common condition that is increasing in incidence. We report a unique case related to the metal components in a defibrillator vest. A 73-year-old woman with congestive heart failure developed an erythematous, scaly, pruritic eruption on the posterior trunk 7 to 10 days after starting use of a Zoll LifeVest, a wearable cardiac defibrillator monitoring device used as a bridge to internal cardiac defibrillator placement. Her dermatitis was symmetric and bilateral in a distribution that corresponded to the metal components of the vest. She denied prior sensitivity to metal, jewelry, topical medications, adhesives, or perfumes. She denied any occupational exposure to metals. She was admitted to the hospital due to progression of this eruption. Once contact dermatitis was suspected, she stopped using the vest in lieu of inpatient monitoring and was treated with fluocinonide 0.05% ointment with rapid improvement in her eruption.

This represents the first reported case of ACD to metal components in a wearable defibrillator. Eliciting a history of metal exposures is important to consider when evaluating patients with suspected ACD.¹ Our patient denied such exposures, and in the absence of patch testing due her inpatient status and no prior history of metal sensitivity, the patient's diagnosis was confirmed by resolution of the dermatitis upon removal of the vest.

Per the vest manufacturer, the rectangular therapy pads of the vest are made of implantable grade 316L stainless steel and contain 10% to 14% nickel. Judging by the distribution of the most severe portion of the dermatitis, the culprit was likely the nickel in the therapy pads. The round electrodes of the vest are made of tantalum dioxide coating. Therefore, it is possible that tantalum could be playing a role, as it has been reported as a rare cause of ACD.² Our case highlights the growing number of metal hypersensitivities related to medical devices. As new technologies emerge, more cases are likely to follow (Fig. 1).

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Figure 1. Left, Clinical photograph of the patient's back showing the roughly rectangular plaques on the upper mid back and smaller more circular plaques on the lumbar back. Right, The entire Zoll LifeVest apparatus showing the large rectangular contact plates and the smaller round electrode sensors.

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Occupational Dermatitis in Instrumentalists: Note the Accessories

To the Editor:

The recent article describing skin disease in musicians¹ provides fascinating insight into a frequently neglected stressor for professional instrument players. Although the article directly reports a high prevalence of callosities and irritant contact dermatitis, caused by contact with the instrument, the authors do not comment upon any skin disease caused by adjuncts to instrument playing.

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