Warfarin-Induced Skin Necrosis

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Figure 1. a and b: The patient's lesions on admission, showing coalescing ecchymoses on both legs and multiple hemorrhagic bullae, some replaced by black necrotic skin ulcers.

A 78-year-old, obese woman with hypertension and atrial fibrillation stopped long-term warfarin for

one week due to an asymptomatic international normalized ratio (INR) of 8.6. Three days after resuming warfarin, painful skin lesions developed on her lower extremities (Fig. 1a and b). Her INR was 2.5 at the time. Warfarin-induced skin necrosis (WISN) was diagnosed and warfarin was replaced by low molecular weight heparin (LMWH). The lesions stabilized and slowly resolved over 4 weeks.

Paradoxical thrombosis following warfarin is a serious, but rare adverse event ($\leq 0.1\%$ of treated patients).¹ Diffuse microthrombi occur within subcutaneous capillaries and

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venules, damaging endothelial cells, and leading to red blood cell extravasation and skin necrosis.

WISN is diagnosed by the history, typical lesions on exam, and exclusion of alternative diagnoses.² It occurs primarily in obese women. Risk factors include recent initiation of warfarin (average 3–6 days), high “loading” doses of warfarin, and hereditary protein C or S deficiency.^{3,4} These risk factors were absent in this case. Prompt recognition and drug withdrawal may improve prognosis.⁵ LMWH bridging is important and the use of the newer anticoagulants may be considered, although safety data is lacking. Resumption of warfarin remains a controversial topic.⁶

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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