

Enoxaparin-induced Skin Necrosis

Dear editor,

Anticoagulant-induced skin necrosis is a rare and serious complication of treatment with these commonly prescribed drugs. Few cases of heparin induced skin necrosis have been reported in literature and only a small number of them was attributed to enoxaparin (1). We report a case with a delayed diagnosis and fatal outcome.

A 78-year-old obese woman with history of hypertension, poorly controlled diabetes mellitus, and cardiomyopathy was admitted to the Geriatric Hospital. Six days earlier she had fallen and sustained an intracapsular hip fracture which had been treated conservatively. For the prevention of deep vein thrombosis, low molecular weight heparin (Enoxaparin Sodium 30 mg, s.c. every 12 hours) was started on the day of injury. Her other routine medications included insulin glargine, metformin, enalapril, omeprazole, amlodipine, citalopram, atorvastatin, and pain medication. At admission she was afebrile, with stable vital signs. Clinical examination revealed redness at the sites of subcutaneous injection of enoxaparin, as well small purpuric lesions on the trunk and extremities. Over the following few days, new progressive, painful, and slightly indurated erythematous lesions were noted



Figure 1. Cutaneous lesions 15 days after initiation of enoxaparin.

on the breasts, face, abdomen, and legs. Some of the purpuric lesions became bullous, with subsequent central necrosis (Figure 1). The diagnosis of enoxaparin-induced skin necrosis was proposed and the treatment was discontinued. Heparin-induced thrombocytopenia, disseminated intravascular coagulation, and sepsis were excluded in this case based on the clinical and laboratory findings. Chest radiography and clinical features of the lesions excluded fat embolism. Despite intensive supportive care our patient died from multiple organ dysfunction 16 days after the initiation of enoxaparin.

Thromboprophylaxis has become established in clinical practice as a safe and effective means of decreasing venous thromboembolic events in surgical patients. Enoxaparin, a low-molecular-weight heparin, is the standard agents used for antithrombotic therapy and prophylaxis. Despite widespread use, reports about adverse effects from enoxaparin are very scarce (2). Heparin-induced skin necrosis typically affects middle-aged women with a history of thrombotic disease. The skin necrosis occurs between day 5 and 11 following initiation of therapy (3-5). The first symptoms are usually described as painful erythematous, subcutaneous lesions with edema, at the injection sites. Subsequently, bullous transformation is observed before full-skin necrosis occurs (5,6). Our experience with this case highlights the importance of early recognition of this adverse event and careful supervision of all patients who receive this medication.

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Received: May 24, 2014

Accepted: August 20, 2015

