

IMAGES IN HAEMATOLOGY

Heparin-induced skin necrosis



An 84-year-old diabetic lady with established peripheral arterial disease and a gangrenous right big toe developed a skin reaction after 7 d of prophylactic, subcutaneous unfractionated heparin (5000 IU s.c. b.d.). An erythematous plaque was first noted in the vicinity of a heparin injection site (left). Further lesions developed over the next 24 h with progression to skin necrosis (right). On the 9th day, her platelet count fell to $93 \times 10^9/l$ (from $365 \times 10^9/l$, 2 d earlier). Heparin-platelet factor 4 antibodies were demonstrated and platelet aggregation studies were consistent with heparin-induced thrombocytopenia. Despite heparin withdrawal and a recovering platelet count, she died suddenly from a massive right-sided cerebrovascular accident 3 d later.

Heparin-induced skin necrosis is due to an immune complex mechanism and is recognized to be strongly associated with heparin-dependent platelet-activating antibodies and risk of thromboembolism, which may occur with or without the development of thrombocytopenia. A diagnosis of heparin-induced skin necrosis should be considered in any patient developing a skin reaction on subcutaneous heparin therapy and, even in patients receiving only thromboprophylaxis, is an indication for immediate cessation of treatment and substitution with a non-cross-reacting anticoagulant, such as danaparoid or hirudin as prophylaxis against possible thrombotic complications.

Department of Haematology West Middlesex University Hospital Middlesex, UK

J. ARNOLD