

The Potential Fatal Heparin-Induced Thrombocytopenia

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Heparin-induced thrombocytopenia (HIT) is considered a deadly adverse effect of heparin therapy. This adverse drug reaction is associated with life-threatening thrombosis [1].

It is mediated by antibodies that target complexes of platelet factor 4 and heparin on the surface of platelets. These antibodies induce platelet activation and create a procoagulant state through generation of thrombin [2].

HIT is diagnosed when a platelet-count fall of more than 50% at 5 to 10 days after the start of heparin therapy. Immunoassays to detect platelet factor 4 antibodies, serotonin release and heparin-induced platelet activation are important to confirm the diagnosis [3].

According to the current guidelines, once the diagnosis HIT is established, Non heparin anticoagulants must be substituted for heparin pending to restore the normal platelet count within few weeks.

Non-heparin anticoagulants including direct thrombin inhibitors (argatroban, bivalirudin, lepirudin), danaparoid, fondaparinux are considered a logical option in management of HIT. Warfarin should be avoided in acute HIT because initial warfarin therapy is associated with hypercoagulability state [4,5].

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