HEPARIN-INDUCED THROMBOCYTOPENIA AND CARDIAC SURGERY

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Objective:
To highlight an uncommon problem of heparin induced thrombocytopenia after coronary artery bypass operation.

HIT may be diagnosed in 1.9% of patients following cardiac surgery, but only 4-5% patients suffer the complications of type II HIT. It is characterised by extensive venous and arterial thrombosis, with a mortality of approximately 33%. Cardiopulmonary bypass (CPB) induces platelet activation with release of platelet factor 4 (PF4), and patients are exposed to high doses of heparin (H).

HIT is characterised by a sudden decrease in platelet count following the administration of heparin. The antibodies associated with high risk of HIT are mainly IgG1, which is present at high titers in the plasma of patients continuously treated with UFH.

Acute treatment is achieved by cessation of all forms of unfractionated and fractionated heparin administration and by intravenous administration of alternative anticoagulants that arrest the thrombocytopenia.