Heparin-induced thrombocytopenia associated with thrombotic microangiopathy

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Some cases of thrombotic microangiopathy (TMA) are refractory to plasma exchange therapy (PE) with persistence or recurrence of thrombocytopenia. We report two patients suffering from TMA of different aetiologies (associated with disseminated malignancy, typical haemolytic uraemic syndrome) with recurrent or persistent thrombocytopenia despite adequate therapy including PE. Since both patients were exposed to unfractionated heparin, heparin-induced thrombocytopenia (HIT) was suspected as a cause. Pretest probabilities for HIT were intermediate. ELISA for PF4/heparin antibodies was strongly positive in both cases, and HIT was confirmed by heparin-induced platelet activation assay. Anticoagulation with lepirudin was initiated, with subsequent rapid increase of the platelet count. TMA might represent a predisposition for HIT. This could be due to TMA-related platelet activation with increased PF4 release. In TMA patients exposed to heparin and with refractory or rapidly recurrent thrombocytopenia HIT should always be considered as a possible cause.