Successful coronary artery bypass graft surgery in severe congenital factor VII deficiency: Perioperative treatment with factor VII concentrate

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Congenital factor VII deficiency is a rare autosomal recessive bleeding disorder with an estimated incidence of 1:500,000. Mild FVII deficiency is associated with an increased risk of posttraumatic and postoperative bleeding, while severe deficiency is associated with easy bruising and spontaneous bleeding, such as mucosal, intraarticular or intracranial hemorrhage.

In cardiovascular surgery under cardiopulmonary bypass (CPB) the risk of postoperative bleeding is increased due to systemic anticoagulation, hemodilution, loss of coagulation factors, hyperfibrinolysis and platelet dysfunction. The increased risk of perioperative hemorrhage in patients with pre-existing coagulation disorders can be significantly aggravated when cardiopulmonary bypass is required. In view of the increased morbidity and mortality associated with allogeneic blood transfusions in cardiac surgical patients suffering excessive postoperative bleeding, safe and effective treatment of a pre-existing coagulation disorder is desirable.

We report on a patient with severe FVII deficiency who was successfully treated with plasma-derived FVII concentrate for the prevention of bleeding after coronary artery bypass grafting (CABG) using CPB.

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