Bleeding after cardiac surgery: the role of recombinant factor VIIa

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Cardiac surgery carries a remarkable risk of blood loss requiring transfusion of blood products. Moreover, severe bleeding necessitating reoperation occurs in 3-5% of patients according to international studies. These patients face a significantly higher morbidity and mortality. This underscores the need for a safe and effective haemostatic therapy, which may significantly improve the outcome. Recombinant activated factor VII is approved for haemophiliacs with inhibitors and patients with thrombasthenia Glanzmann and factor VII deficiency. In the proceeding years a series of articles has been published reporting the successful and safe therapy of refractory bleeding after cardiac surgery. This review focuses at presenting the pathophysiological alterations of the haemostatic system related to the cardiopulmonary bypass. These alterations are thought to explain the high risk of bleeding after cardiopulmonary bypass. Furthermore, the use of rFVIIa in paediatric and adult cardiac surgery is reviewed and critically discussed.

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