Management of a patient with a mechanical aortic valve and antibodies to both thrombin and factor V after repeat exposure to

fibrin sealant.

Authors: Zumberg MS, Waples JM, Kao KJ, Lottenberg R

Publication Date: 2000

Abstract:

We describe a patient who developed a markedly prolonged PT, PTT, and thrombin time 13 days

after repeat exposure to fibrin sealant during coronary artery bypass grafting and aortic valve

replacement. Evaluation revealed an inhibitor to bovine thrombin that cross-reacted with human

thrombin. In addition an inhibitor to human coagulation factor V was identified. Despite coagulation

abnormalities there was no evidence of bleeding. Nevertheless, effective anticoagulation was

required to minimize the thrombotic complications associated with the patient's prosthetic valve. We

elected to take a conservative approach and not utilize pharmacologic anticoagulation until there

was diminution in the effect of the acquired inhibitors. We report on our patient's course and review

the available literature addressing the management of patients demonstrating inhibitors to blood

coagulation factors after repeat exposure to fibrin sealants.