

Acquired FV inhibitors: a needless iatrogenic complication of bovine thrombin exposure.

Authors: Streiff M.B., Ness P.M.

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Abstract:

BACKGROUND: FV inhibitors are a largely preventable iatrogenic coagulopathy in which the frequency is increasing in clinical practice. STUDY DESIGN AND METHODS: Three cases associated with our institution are reported. A systematic review of the MEDLINE database was performed, and reference lists were reviewed to identify relevant publications. RESULTS: One hundred twenty-six cases of FV inhibitors have been reported in the world's literature. Eighty-seven have been reported in the last decade, of which two thirds are due to exposure to bovine thrombin. Bovine thrombin-associated FV antibodies develop in 40 to 66 percent of cardiac surgery patients and in 20 percent of neurosurgery patients. Thirty-three percent of reported patients developed bleeding complications. Inhibitors persisted on average 2.3 months. Standard coagulation assays do not reliably predict clinical manifestations. Multimodality therapy, including immunosuppression, is useful for treatment of symptomatic patients. CONCLUSIONS: FV inhibitors are a common complication of bovine thrombin exposure that can have devastating clinical consequences. Transfusion medicine specialists and hematologists can play a critical role in reducing the incidence of FV inhibitors by educating the medical community about safer alternative fibrin sealants.