

[C-24] Minimizing Surgical Bleeding During Hemimandibulectomy in Hemophilia and Congenital Heart Disease: A Case Report

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INTRODUCTION: The role of the anesthesiologist is critical and complex. We are responsible for the state of anesthesia during surgery, as well as the medical management of the surgical patient in the perioperative period. Given the increasing complexity of the surgical patient, we are faced with the task of balancing several disease states to maintain the safety of our patients. At times, we may be faced with conflicting treatments for multiple disease states in the same patient. We describe a patient in which two disease states require conflicting treatment.

CASE PRESENTATION: The patient is an 8 year old male with a PMH significant for factors V, VII, VIII deficiency and hypoplastic left heart status post completion of total caval pulmonary anastomosis and closure of fenestration. He was noted to have a right vascular mandibular mass for which he was scheduled for right hemimandibulectomy with reconstruction. Preoperatively, he was given 1000u of Advate per hematology recommendations, followed by a continuous infusion of 70 IU/hour. The patient was taken to the OR where standard ASA monitors were applied and IV induction was performed. After uneventful nasal intubation, three large peripheral IVs and a radial arterial line were placed. ABG, coagulation studies and factor level were drawn hourly. Labs and vitals remained stable throughout the case. EBL was 250 ml with no blood products needed. At the end of the procedure, the patient was successfully extubated and transported to the PICU in stable condition. The patient did well postoperatively and was discharged on postop day 11.

DISCUSSION: This anesthetic management of this patient proved to be quite complex. On one hand, we had a high risk of surgical bleeding. According to an article on the surgical considerations for hemophiliac patients, “consulting hematologists determined that preoperative porcine FVIII therapy would be the most appropriate management option”. On the other hand, we had a risk of thrombotic events given the patients history of surgical correction of hypoplastic left heart syndrome. After surgical correction of hypoplastic left heart syndrome, patients are maintained on anticoagulation therapy, such as aspirin or warfarin. In this patient, we had to balance taking the patient off of anticoagulation and starting factor, which could lead to thrombotic events, with maintaining anticoagulation, which could lead to uncontrolled bleeding.

CONCLUSION: As anesthesiologists, we are faced with balancing risk versus benefit. Occasionally, we are presented with the interesting patient that has multiple disease states with conflicting treatments. In these cases, the benefit of treatment of one disease is the risk of the other, and vice versa. In these situations, the anesthesiologist must utilize expert consults, such as the hematologist in this case, as well as our training and experience to develop a plan to maximize benefit while minimizing risk.

References:

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