INTRODUCTION

We present a case of Tumor lysis syndrome (TLS) that was initiated by a single, low dose of dexamethasone in a patient undergoing a lumbar puncture with chemotherapy and central line placement that led to significant morbidity for the patient.

CASE HISTORY

- 11 year old with T cell lymphoblastic leukemia presented for LP with chemotherapy and central line placement
- Preoperative airway exam noted tonsillar hypertrophy
- General anesthesia was induced, difficult mask ventilation without oral airway, LMA was inserted for the procedure
- Dexamethasone and ondansetron were given for PONV prophylaxis
- Patient awakened at end of procedure, LMA was removed and patient taken to PACU
- During routine surveillance labs for tumor lysis syndrome, the patient was noted to have significantly elevated potassium and phosphorus levels.
- Medical management for hyperkalemia was initiated but failed
- Emergent dialysis catheter was placed in the subclavian vein with sedation
- Sedation complicated by airway obstruction for which a nasal trumpet was placed.
- Epistaxis was noted following placement of the dialysis catheter.
- HD was initiated for management of electrolyte disturbance
- Epistaxis proved unresponsive to pressure and medications
- ENT was consulted and emergent exploration of oropharynx was performed
- After induction of general anesthesia, the patient was intubated without issues

TREATMENT PLAN

- During exploration, it was noted that patient had very large adenoids that obstructed the choanae. brisk bleeding from nasopharynx was seen.
- Very difficult surgical control of bleeding
- Multiple attempts at hemostasis were unsuccessful with electrocautery and sponges
- Multiple attempts with surigofoam and activated thrombin with eventual hemostasis.
- Total OR time was approximately 2 hours
- Packed red blood cells and FFP were given intraoperative to help with volume resuscitation
- Patient was brought to PICU intubated and sedated. He was extubated the next morning without any other respiratory or bleeding problems.

CONCLUSION

- Tumor lysis syndrome may occur when leukemias or lymphomas are treated with chemotherapeutic agents
- It usually presents with hyperkalemia, hyperphosphatemia and hyperuricemia
- There are case reports of corticosteroid precipitating tumor lysis syndrome on the oncology wards but not many during the perioperative period
- There is a case of fatal perioperative case of TLS precipitated by dexamethasone
- TLS is an oncologic emergency that is accompanied by electrolyte abnormalities and acute renal failure
- Treatment may consist of hydration, urinary alkalization, allopurinol or hemodialysis
- Due to the risk of TLS, we caution against the use of corticosteroids in children with possible leukemia or lymphoma until they have received their first dose of corticosteroids by the oncology service.

FIGURE

REFERENCES