



CASE REPORT

Partial Transurethral Prostatectomy In Patient With Congenital Factor VII Deficiency

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Gross hematuria is an uncommon first presentation of benign prostatic hyperplasia (BPH), with a prevalence of about 2.5%.¹ Here we report a patient with intractable hematuria and congenital factor VII (FVII) deficiency who was presented for partial transurethral resection of prostate (TURP).

Case Report

A 56-year-old African-American male (height 182 cm, weight 77 kg) was presented for cystoscopy and partial TURP. History of the present illness was significant for gross hematuria, for which he was transfused with 4 units packed red blood cells (PRBC) and the bladder irrigation was performed at an outside institution. Hematuria could not be controlled and he was therefore transferred to our hospital for further care. Vital signs upon arrival were stable: temperature 37 °C, blood pressure 118/77 mmHg, pulse 77 /min, respiratory rate 19 /min, and O₂ saturation was 96% on room air. The patient was a well developed, well nourished male in no acute distress.

History was significant for the fact that, although the patient reported no personal history of significant bleeding, he did note that his “father was a bleeder”. The patient reported no allergies and no other significant past medical history. The physical exam was unremarkable and laboratory workup revealed a hemoglobin of 10.0, hematocrit of 28.3, prothrombin time of 18.2, International Normalized Ratio (INR) of 1.54, and partial thromboplastin time of 32.1. Hematology consult was obtained. Mixing hematological laboratory studies were ordered to determine the

presence or absence of heparin or direct thrombin inhibitors, and they were all negative. The diagnosis of FVII deficiency was confirmed by measuring FVII activity, which was only 2% of normal. In preparation for surgery, two units of fresh frozen plasma (FFP) were transfused and recombinant factor VIIa (Novoseven) was requested from a pharmacy.

The patient was taken to the operating room, and 90 mcg/kg of Novoseven intravenously (IV) was given prior to surgical incision. Subsequently, a partial TURP was performed under general anesthesia. The patient’s intraoperative course was uneventful. Estimated blood loss was 200 ml and he received 1200 ml of crystalloids. The patient was extubated without complications and then taken to the postoperative anesthesia care unit (PACU) in a stable condition.

Following extubation, the patient was noted to have moderate facial edema. Respirations were unlabored and breath sounds were clear to auscultation bilaterally. The patient quickly developed hypertension with systolic blood pressures in the low 200’s. Other vital signs including heart rate remained stable. It was feared that the patient may have had either an allergic reaction to the recombinant Factor VII or fluid overload. The hypertension was treated with furosemide and antihypertensive hydralazine and labetalol IV. Diphenhydramine and corticosteroids were given IV in the event that this was an allergic reaction. The patient responded to the treatment and was eventually discharged from the PACU with stable vital signs including systolic

blood pressures in the 130-140 mmHg. He remained stable on the floor and the edema gradually resolved. He was discharged home six days later.

Discussion

Congenital FVII deficiency is a rare bleeding disorder with high phenotypic variability, and the incidence is approximately 1:500,000.² In the majority of patients, FVII deficiency is associated with only mild hemorrhagic disorder. However, surgery may be associated with severe bleeding, and preoperative FVII replacement is advocated.³ FVII replacement has traditionally been achieved with FFP, protrombin complex concentrates or plasma-derived FVII concentrates. However, in 2005, a recombinant FVIIa (Novoseven) was FDA approved for the prevention and treatment of bleeding in patients with congenital FVII deficiency undergoing surgical procedures. In this case, No-

voseven was used effectively in a patient with congenital FVII deficiency for the treatment of intractable hematuria associated with BPH and TURP.

References

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