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Letter to Editor

Anesthetic Challenges in a Geriatric Patient with Severe Aortic Stenosis Undergoing TURP Converted to Open Prostatectomy

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I am writing to bring attention to the complex anesthetic challenges encountered during the perioperative management of elderly patients with severe aortic stenosis (AS) and multiple comorbidities undergoing non-cardiac surgery [1-2]. We recently cared for an 85-year-old male patient with benign prostatic hyperplasia (BPH) who was scheduled for a transurethral resection of the prostate (TURP), and his case illustrates the essential importance of being prepared, maintaining careful monitoring, and fostering multidisciplinary collaboration in anesthesia care. The patient, who weighed 61 kg, complained of micturition difficulties for two months. He was a known hypertensive and type 2 diabetic for 1.5 years, managed with Stamlo 5 mg and Metformin 500 mg daily.He had been on antiplatelet therapy (Ecosprin) for one year, which was discontinued 8 days prior to surgery. Vital signs were stable prior to surgery (BP 130/70 mmHg, HR 84/min). A short neck, double chin, several missing teeth, a Modified Mallampati grade II, and a three-finger mouth opening were all noted in the airway assessment. Preoperative tests showed hyperkalemia (K^+ 5.98 mmol/L) and mild azotemia (urea 55 mg/dL, creatinine 1.34 mg/dL).

Echocardiography showed EF 60%, no RWMA, and severe AS, and the patient was advised to get Trop I and CKMB, for which Trop I was 11.70 and CKMB was less than 0.18. He was classified as ASA Grade III, and both medical and cardiac specialists cleared him for surgery under high-risk consent [3].

Patients with severe aortic stenosis (AS) are particularly vulnerable during anesthesia because their ability to increase cardiac output is limited, and even small shifts in blood pressure or heart rate can be poorly tolerated. For this patient, general anesthesia was chosen, and an arterial line was inserted under local anesthesia before induction to allow continuous monitoring. Induction was done with rocuronium, and anesthesia was maintained using inhalational agents with additional vecuronium as needed. Throughout the procedure, efforts were directed toward maintaining adequate preload and systemic vascular resistance while avoiding tachycardia or bradycardia.

What began as a routine TURP later became complicated when the patient developed significant bleeding, raising concern for a bladder perforation. This required an urgent conversion to open surgery. The patient lost nearly 2000 mL of blood and became hypotensive, with blood pressure dropping to 85/50 mmHg. Noradrenaline infusion was started immediately, and fluid resuscitation was continued. He received two units of packed red blood cells and one unit of FFP. The suspected bladder rent was confirmed during the laparotomy and was repaired [4].

In patients with severe AS, such acute blood loss can rapidly lead to hemodynamic instability because the heart cannot compensate for sudden changes in preload or afterload. Safe anesthetic management in these situations depends on continuous monitoring and early intervention. In this case, the use of invasive blood

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pressure monitoring, timely vasopressor support, and cautious fluid administration helped maintain coronary perfusion and prevent further deterioration. After completion of the surgery, the patient was reversed with sugammadex, extubated, and transferred to the surgical ICU. Over the next 12 hours, he remained stable, with good urine output, and antiplatelet therapy was restarted once surgical hemostasis was confirmed. (Figure1) shows patient ‘s intraoperative vitals.

(Figure 2 and 3) shows ventilator settings and monitoring of the patient.

Severe AS is well known to carry substantial perioperative risk. Although TURP is usually considered a low-risk urological procedure, complications such as bladder perforation can drastically change the course of anesthesia. Current cardiac guidelines emphasize the need for close perioperative monitoring and team-based decision-making in such high-risk patients. This case highlights how elderly patients with significant cardiac disease may deteriorate quickly even during routine surgery and underlines the value of thorough preparation, anticipation of complications, and good communication between the surgical and anesthesia teams [5].

This case underscores that even seemingly straightforward urological procedures such as TURP can quickly become high-risk in elderly patients with severe cardiac disease. It highlights the importance of anticipatory anesthetic planning, thorough cardiovascular evaluation, and strong communication among the care team. Managing such patients is best undertaken in facilities that offer advanced perioperative monitoring and robust cardiology support.

Figure 1- Intraop Monitoring Vitals

Figure 2- Ventilator Monitoring

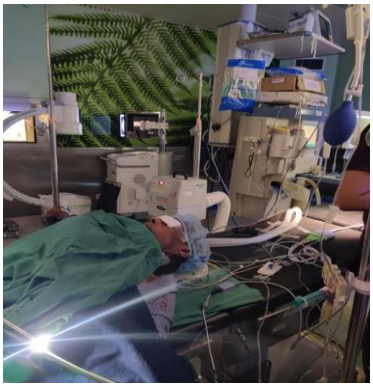

Figure 3- Intraoperative Status

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