A 69 year old male patient was admitted to our hospital with complaints of burning micturition and hematuria for 4 days. On ultrasonography a hypoechoic vesicular mass of size 54mm × 51mm of irregular outline was seen in lateral and posterior bladder wall. The patient was posted for emergency transurethral resection of bladder tumour for control of bleeding. During the preanesthetic checkup it was noted that the patient had an occupational exposure to coal mines for 30 years and was dyspneic on moderate exertion. His ECG showed ST segment depression and inverted T waves in chest leads V2, V3, V4, V5, V6 and limb leads I and a VL. A screening echocardiography showed trivial tricuspid regurgitation, with ejection fraction of 52% and regional wall motion abnormality in left anterior descending artery territory. Blood investigations revealed a haemogram of 8 gm% and a PCV of 23%. Coagulation profile in the emergency department revealed a haemogram of 8 gm% and a PCV of 23%. Prothrombin time and activated partial thromboplastin time were within normal limits. Screening echocardiography revealed trivial tricuspid regurgitation, with ejection fraction of 52% and regional wall motion abnormality in left anterior descending artery territory. Blood investigations revealed a haemogram of 8 gm% and a PCV of 23.

Patient was accepted for Anaesthesia under American Society of Anesthesiologists class III and written informed consent obtained with a plan of Spinal Anaesthesia plus obturator nerve block. Two units of packed cells were transfused preoperatively. Patient was nil per oral from the previous night and Tab. Ranitidine 150 mg + Tab. Metoclopramide 10 mg were given at 7 A.M. on the day of surgery. On the operative table his vitals were blood pressure 98/60 mmHg, Pulse rate 92/minute and oxygen saturation was 94% on room air. Pre-loading was done with 250 ml of normal saline. Inj. Mirdazolam 1.5 mg was given intravenously 5 minutes prior to the subarachnoid block.

Procedure
Under all available aseptic precautions, spinal anaesthesia was given at L3-4 space by a 25 G Quincke needle. A total volume of 2.4 ml containing 2ml of hyperbaric bupivacaine. 5% and 0.4 ml of butorphanol was given. Obturator nerve block was given with 25 G spinal needle after lithotomy position. The sensory level of blockade was up to T8. Intra operatively isotonic saline was administered at the rate of 60 ml/hour. The entire procedure lasted for an hour and twenty minutes. Vitals were recorded every 5 mins. ECG monitoring was done with lead II (for inferior wall) and V5 (for lateral wall) to detect any changes in ST-T segment during peri-op period. Patient was shifted to recovery room and one unit...
of packed cells transfused after that he was transferred to intensive care unit. Lactated Ringers solution was given at 100 mL/hour for four hours, after that oral feeds started. Postoperative analgesia was provided with inj. paracetamol i.v. 8th hourly for 24 hours and inj. Tramadol 100mg i.v. 12 hourly. 12 lead ECG was taken twice daily for three days to rule out any fresh changes, in addition to the continuous ECG monitoring in intensive care unit (Fig 1). After a week patient was discharged and was doing well for three months of our follow-up.

**Figure 1:** ECG of the patient

**DISCUSSION**

The anaesthetic management in the patients with obstructive lung pathologies is based on preventing hypoxia. Changes in respiratory physiology in the elderly patients make them prone to hypoxia intra operatively and cardiovascular system changes can result in severe hemodynamic instability under anesthesia. Maintaining the balance between myocardial oxygen requirements and myocardial oxygen delivery is crucial in preventing the myocardial ischemia. Spinal anaesthesia is preferred over General anaesthesia in the elderly patients because of hemodynamic benefits which includes a minimum decrease in myocardial contractility and a modest decrease in blood pressure and cardiac output.

In the present case, bleeding from the tumor would eventually lead to severe anaemia thereby affecting his cardio-respiratory status. General Anaesthesia carries the effects on the hemodynamics of the heart such as depression in myocardial contractility, an alteration in the heart rate and blood pressure as well as prevents which in the present case would be detrimental. Events during general anesthesia like light anesthesia, mechanical irritation due to tube, histamine releasing agents can all cause broncho-constriction and hypoxic events. Spinal Anaesthesia was chosen in this patient because it produces satisfactory surgical analgesia, causes minimal hemodynamic changes in this age group, avoids tracheal intubation and maintains spontaneous ventilation leading to unimpaired lung function. Obturator nerve block was added to avoid adductor contractions as the tumour involved the lateral wall of bladder. In this patient, hemodynamic stability was maintained throughout the procedure because of addition of intrathecal butorphanol with reduction in local anaesthetic volume. 0.4 ml (0.4mg) of butorphanol with 2.0 ml of hyperbaric 0.5% bupivacaine was used, thus reducing the dose of local anaesthetic which is responsible for the sympathetic blockade and hypotension. Butorphanol also prolongs the duration of blockade.

**CONCLUSION**

Patients with known ischaemic heart disease and chronic obstructive pulmonary diseases posted for emergency transurethral resection of bleeding bladder tumour may be managed with subarachnoid block combined with obturator nerve block while keeping the haemodynamic variables stable.

**REFERENCES**


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