

## FINASTERIDE INDUCED SEVERE BRADYCARDIA FOLLOWING TOURNIQUET RELEASE UNDER SPINAL ANESTHESIA

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### ABSTRACT

We present a case of 75 year old male (ASA – II) posted for total knee replacement for osteoarthritis of right knee under combined spinal epidural anesthesia, who had severe bradycardia after tourniquet release following surgery. Patient a known case of type-II diabetes mellitus (Tab. Glimiperide and Tab. Voglibose), hypertension (Tab. Amlodipine) and benign prostatic hyperplasia (Tab. Finasteride) on regular medications.

Anaesthetic preparation included initial placement of epidural catheter (18G) between L2-L3 space in right lateral position and later Subarachnoid block (SAB) with 25-gauge Quincke needle in L3-L4 space. After clear flow of CSF 3.0 ml of Inj. Bupivacaine was injected intrathecally. Sensory level of block up to T10 was achieved. Limb was exsanguinated with an elastic esmarche bandage and inflation pressure was set to 250 mmHg. Following surgery (1 hour and 30 minutes) tourniquet was deflated. Three minutes following tourniquet deflation, ECG showed severe bradycardia (heart rate of 16 bpm). Immediately 0.6mg atropine (IV) and 10 litres of oxygen (Face mask) were given. Heart rate gradually improved to 68 beats per minute. In view of hypotension (BP-84/42 mm Hg) patient was shifted to ICU for further management. Investigations such as ABG, ECG, 2-D Echo and serum electrolytes were normal with only a slight elevation of serum lactate. Patient was managed with intravenous fluids and noradrenalin, later noradrenalin was tapered and stopped. Next day patient was shifted to room in hemodynamically stable condition.

Deflation of tourniquet is known to cause hemodynamic changes (like transient fall in central venous and systemic arterial pressure), metabolic derangements,<sup>[1]</sup> neurological derangements,<sup>[2]</sup> and even cardiac arrest.

In our case, we tried to find the cause of severe bradycardia by checking for duration of tourniquet, loss of blood post release of tourniquet and doing lab tests mentioned above which were normal. Drugs such as Glimiperide, Voglibose and Amlodipine are not known

to cause bradycardia. Personalized health information from FDA and social media,<sup>[3]</sup> where they analyzed 5,420 people who had side effects while taking Finasteride showed 91 patients having bradycardia who are > 60 years and having high blood pressure.

Main aim of this report is to highlight the fact that higher incidence of bradycardia and sudden cardiac arrest could happen in patients taking Finasteride (5-alpha reductase inhibitor) for BPH previously. Hence we should be aware of this complication during perioperative period while giving regional anaesthesia particularly to such patients.

### ACKNOWLEDGEMENTS

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### REFERENCES

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