

Gabapentin withdrawal causing acute hypertension in a post-operative patient: A Case Report

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ABSTRACT

CASE DESCRIPTION

A 62 year-old male with hypertension treated with losartan and metoprolol, and neuropathic pain treated by gabapentin underwent L3-L5 decompression and fusion for spinal stenosis. On post-operative day (POD) 1, he became suddenly unresponsive. Workup including labs and imaging was unremarkable. The episode was determined to be vasovagal and all medications were discontinued. Over the next 3 days, anti-hypertensives were restarted and pain was controlled with Tylenol and Oxycodone. Average blood pressure between POD 1-5 was 138/76. On POD 6, the patient was transferred to the inpatient rehabilitation unit. He developed acute hypertension with persistently elevated blood pressures to 194/107 despite receiving his home anti-hypertensives plus intravenous labetalol. Concurrently, he developed increased neuropathic pain. Gabapentin was restarted, which resolved the hypertension and neuropathic pain within 24 hours. His average blood pressure was 132/81 between POD 8-12.

DISCUSSION

This case supports several other case reports describing gabapentin withdrawal causing hypertension after abrupt cessation of use. It further supports that reinstatement of gabapentin is effective in alleviation of withdrawal symptoms.

CONCLUSION

Abrupt discontinuation of gabapentin in patients with long-standing use may result in gabapentin withdrawal causing acute hypertension.

CASE PRESENTATION

HISTORY

- 62 year old male was hospitalized after an uncomplicated L3-5 decompression and fusion for right lumbar radiculopathy in context of severe spinal stenosis
- He was admitted to the inpatient rehabilitation unit on post-operative day (POD) 6 when he developed acute hypertension

PAST MEDICAL HISTORY

- Hypertension → Losartan 100 mg daily and Metoprolol succinate 50 mg daily
- Hyperlipidemia → Atorvastatin 40 mg daily
- Neuropathic pain → Gabapentin 900 mg three times daily (TID)

PAST SURGICAL HISTORY

- C4-7 post anterior cervical decompression in 2015 for cervical radiculopathy
- L1-2 synovial cyst resection in 2017
- L2-5 decompression in March 2019

HOSPITAL COURSE

POD 1: Patient became acutely unresponsive. Workup including labs and imaging was unremarkable. Episode was determined to be vasovagal and all medications were discontinued.

POD 6: Patient was transferred to the inpatient rehabilitation unit.

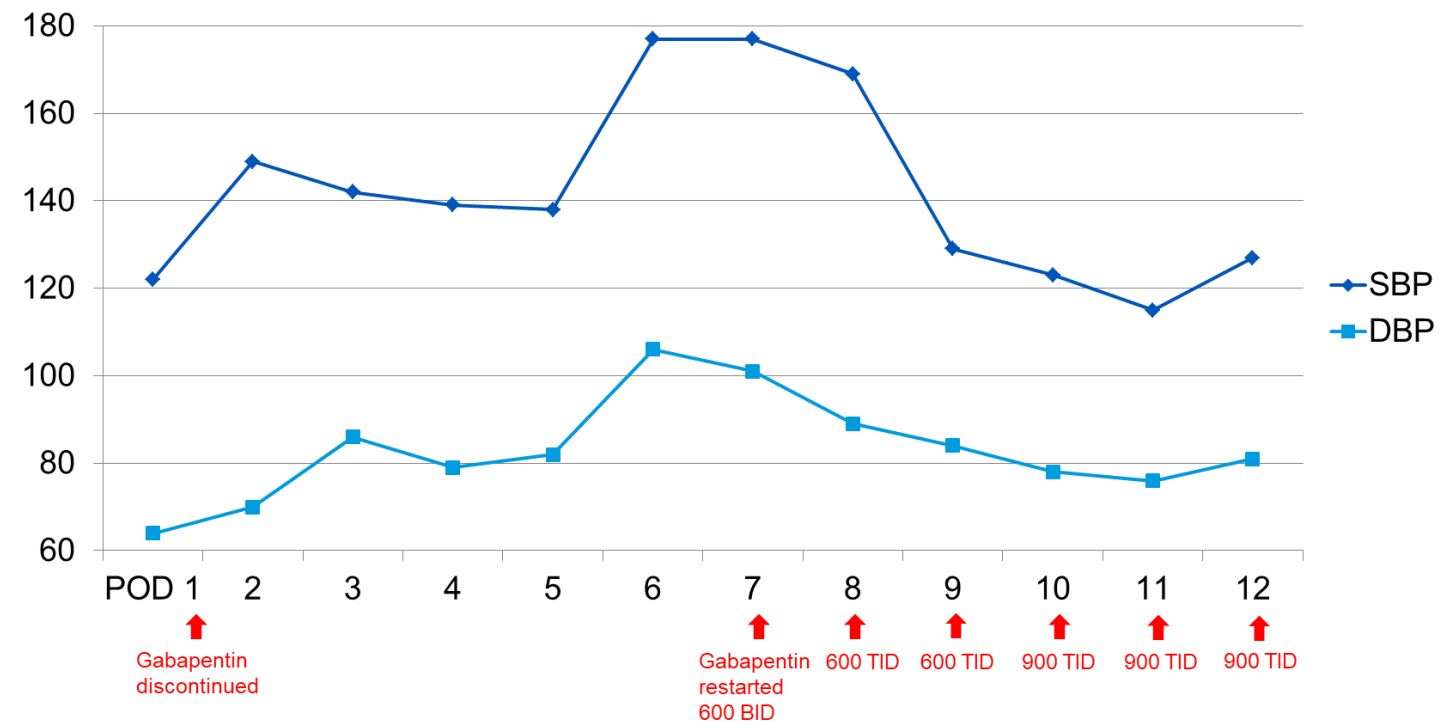
POD 7: Patient developed increased neuropathic pain. Gabapentin was re-started and titrated to home dose over 3 days.

POD 4: Anti-hypertensives were restarted and pain was controlled with Tylenol and Oxycodone.

POD 6: After transfer, the patient developed acute hypertension with persistently elevated blood pressures to 194/107 despite receiving home anti-hypertensives plus intravenous labetalol.

POD 10: Hypertension resolved and neuropathic pain was controlled.

TABLE 1: POST-OPERATIVE BLOOD PRESSURES



Blood pressures recorded in mmHg from post-operative day (POD) 1 to POD 12 with dosing of Gabapentin recorded. Systolic blood pressure dark blue diamond. Diastolic blood pressure light blue square.

DIAGNOSIS

Gabapentin withdrawal causing acute hypertension

DISCUSSION

- Withdrawal can occur between 12 hours and 7 days after cessation of use.²
- Common symptoms: agitation (>50%), diaphoresis (36%), unspecified GI symptoms (23%), tremor (18%), tachycardia (18%), **hypertension** (18%), and insomnia (14%).²
- Reinstitution of gabapentin is effective in alleviation of withdrawal symptoms.¹⁻⁴
- This case supports other case reports describing gabapentin withdrawal causing acute hypertension after abrupt cessation.
- It further supports that re-starting gabapentin is effective in alleviation of withdrawal symptoms.

CONCLUSIONS

- Abrupt discontinuation of gabapentin in patients with long-standing use may result in gabapentin withdrawal causing acute hypertension

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