

## Systemic side effects of topical prostaglandin analogues: Rare but real

Dear Editor,

Discontinuing topical prostaglandin analogues (PGAs) on account of their systemic side effects is rare in clinical practice.<sup>[1]</sup> Presented series details three cases started on topical PGAs who communicated gastric and cardiac complaints within few days of treatment initiation.

### Case 1

A 48-year-old male diagnosed as primary open-angle glaucoma, was started on timolol and latanoprost eye drops. After 7 days, patient reported gastric burning. He was given antacids. Patient reviewed after 3 weeks and stated that he has stopped both eye drops for past 2 weeks and has no gastric complaints. Patient was counselled and started on timolol and dorzolamide eye drops. Unmasked rechallenge with latanoprost and bimatoprost eye drop on a later date, made the patient report gastric symptoms each time.

### Case 2

A 60-year-old female with primary open-angle glaucoma was started on latanoprost eye drop. In a week, she complained of worsening of pre-existing gastric acidity, vomiting and loss of appetite. Referral to physician revealed normal investigations. She was switched to dorzolamide eye drop. No major gastric complaints have been reported thereafter.

### Case 3

A 68-year-old otorhinolaryngologist, diagnosed as primary angle closure glaucoma in both eyes at a tertiary eye hospital, was started on pilocarpine and latanoprost eye drops. Within 1 month, he reported episodes of angina. He had recurrent palpitations for 1 year. During this period, he reviewed three times at the eye institute. He was investigated at cardiac unit and got treated for vasospastic angina. The subject, being a medical professional, did a literature search and stopped latanoprost eye drop on his own. Subsequently, as stated, he never had palpitations or angina.

It is speculated that stimulation of the smooth muscles and visceral nociceptors combined with vasoconstriction by Prostaglandin F<sub>2α</sub> are responsible for the gastrointestinal and cardiac effects.<sup>[2-5]</sup> Ophthalmologists need to be aware of such unfamiliar systemic effects of topical PGAs and exercise caution while usage in susceptible subjects.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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### Conflicts of interest

There are no conflicts of interest.

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