

# Ocular surface squamous neoplasia treated with topical interferon $\alpha$ 2b

Amar Pujari

Dr Rajendra Prasad Centre for Ophthalmic Sciences, All India Institute of Medical Sciences, New Delhi, India

**Correspondence to**  
Dr Amar Pujari,  
dramarpujari@gmail.com

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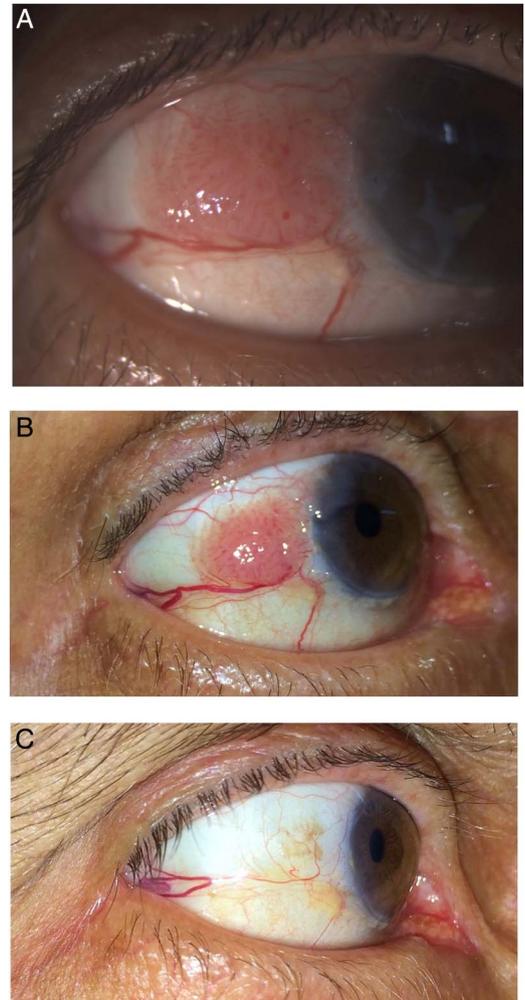
## DESCRIPTION

A 64-year-old male patient presented with fleshy lesion over the right temporal conjunctiva for the past 3 months with a gradual increase in size. History of trauma and pain was absent, and past history did not reveal any significant ocular/systemic morbidities. Right eye examination showed single 6\*8 mm fleshy mass on the temporal aspect of right conjunctiva extending from the limbus, and the surface showed 'corkscrew' vessels, with prominent 'feeder' vessel; impression cytology revealed dysplastic cells consistent with ocular surface squamous neoplasia (OSSN) (figure 1A).

The patient requested for medical line of management, and he was started on eye drop interferon  $\alpha$ -2b (1 million IU/mL) four times/day; at the end of 2 weeks, there was small reduction (~25%) in the size of the lesion (figure 1B) and at the end of 5 weeks, there was complete resolution of the lesion (figure 1C). There has been no recurrence during 1 year of follow-up.

OSSN includes tumours that vary from mild dysplasia to carcinoma in situ and invasive carcinoma breaching the basement membrane; they mainly involve the cornea and conjunctiva. The preferred treatment modality is surgical excision with 'no-touch technique' along with the application of cryotherapy to the conjunctival margins, but surgery can cause infection, limbal stem cell deficiency, symblepharon and other complications.

Nowadays there is a growing experience about the use of interferon- $\alpha$  2b as the initial treatment modality. As compared to surgical modality and earlier use of mitomycin-C, the side effect profile of this medication is minimal. Other agents used as topical chemotherapy include 5-fluorouracil and mitomycin-C. In this scenario interferon,  $\alpha$ -2b eye drops showed an excellent response with complete regression of the mass along with the feeder vessel.<sup>1 2</sup>



**Figure 1** (A) Clinical picture of the tumour before starting topical interferon  $\alpha$  2b. (B) At the end of 2 weeks, approximately a quarter reduction in the size of the tumour mass. (C) At the end of 5 weeks, there is a complete regression of the tumour mass along with feeder vessel.



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## Learning points

- ▶ Interferon  $\alpha$  2b is a very effective topical chemotherapeutic drug for the treatment of ocular surface squamous neoplasia (OSSN) with minimal adverse effects.
- ▶ This clinical example highlights the important role of this drug in early, small, limbal, corneal and giant OSSN tumours.

**Competing interests** None declared.

**Patient consent** Obtained.

**Provenance and peer review** Not commissioned; externally peer reviewed.

## REFERENCES

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