

INTRODUCTION

Ocular Surface Squamous Neoplasia (OSSN) consists of a wide array of ocular tumours which ranges from Conjunctival Intraepithelial Neoplasia, Corneal Epithelial Dysplasia to Squamous Cell Carcinoma and Mucoepidermoid Carcinoma. These lesions are rare as the incidence lies between **0.02 to 3.5/100000**, with higher incidence in equatorial regions.



Risk Factors



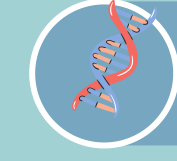
HIV, HPV
Hepatitis B and C



Chronic UV B Exposure

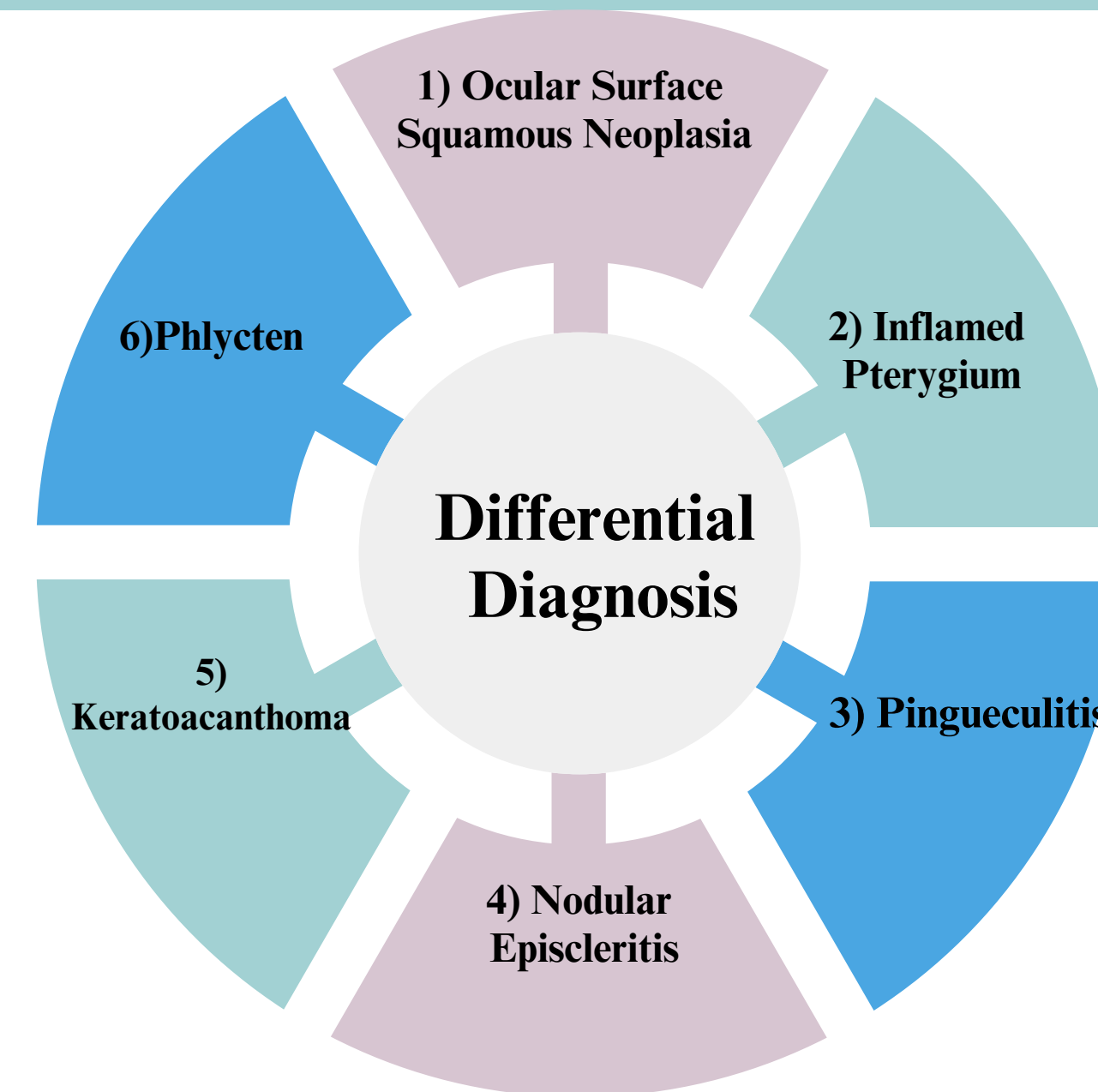


Chronic Smoking



Xeroderma Pigmentosa

In the cornea, there was a depressed region of 1mm diameter and clearly defined margins in the limbal zone at 3 o' clock position suggestive of **Dellen**. No preauricular and submandibular lymphadenopathy.



The HPE report favoured features of OSSN- **Squamous intraepithelial neoplasia with features indicating invasion.**

A follow up was done 10 days later in which a gelatinous mass of **5x3mm** seen. As a result, diagnosis of **recurrence of tumour** was made. **Topical Interferon Alpha 2B** (1 million IU/ml) 4 times a day was prescribed for remission and the patient was asked to come 10 days later. **Post topical immunotherapy, the mass decreased in size** and the patient was asked for a follow up.

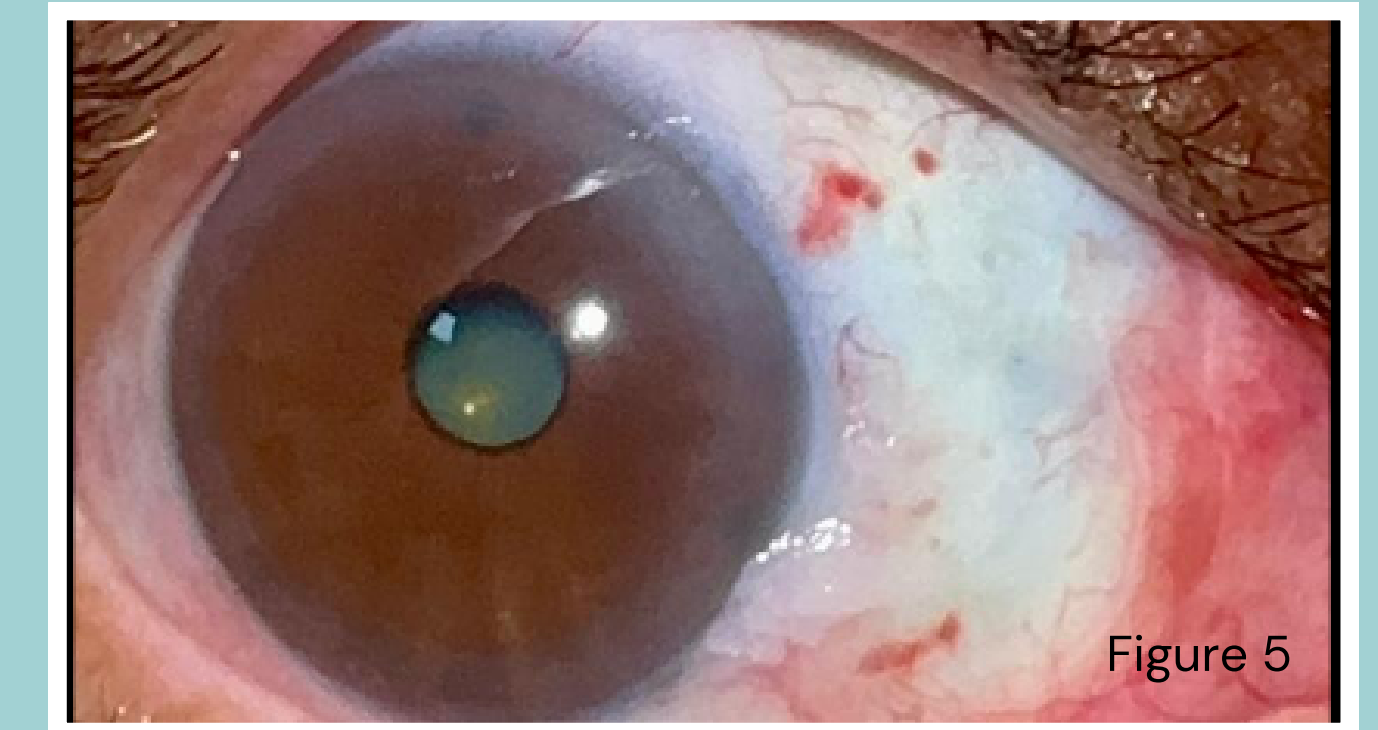


Figure 5 :Recurrence of the gelatinous mass (5x3mm)

CASE HISTORY

59 years old female presented to OPD with chief complaints of an **elevated mass** in the right eye which she noticed a month ago. The mass was **painless** and gradually **progressive**. The patient complained of foreign body as well as gritty sensation in the right eye. No complaints of discharge or diminution of vision. Patient is a known case of **hypertension** and has been on treatment for the last 10 years. .

EXAMINATION

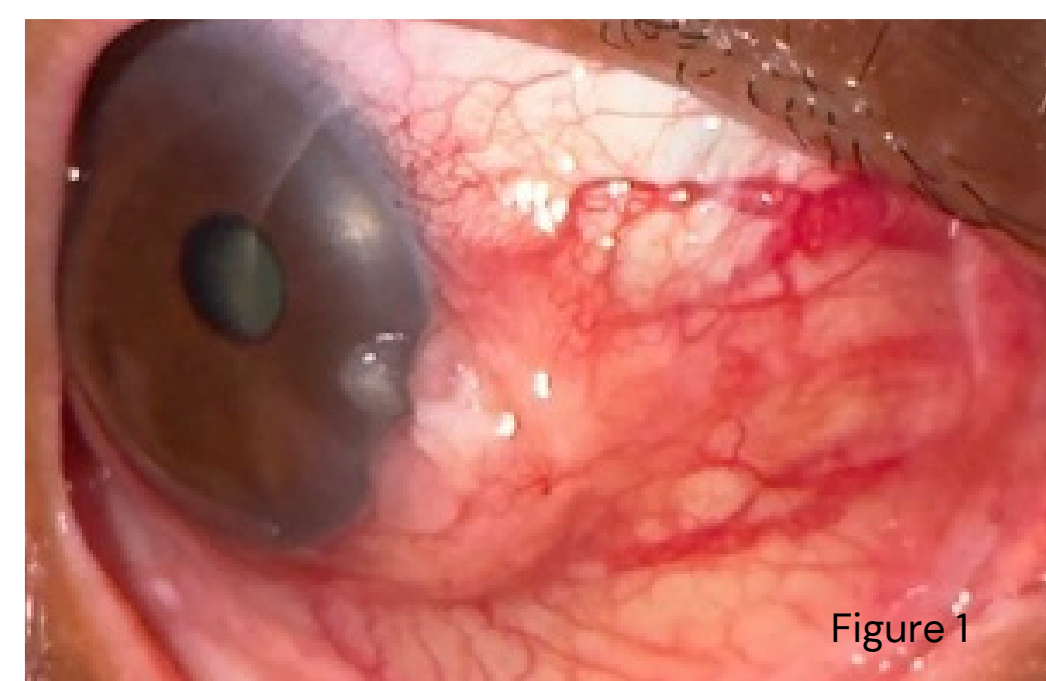


Figure 1 and 2 shows an elevated gelatinous lesion in the inferonasal quadrant of eye

On examination of the right eye, an elevated gelatinous lesion (10mm x 6mm), with diffuse margins, at the limbus in the inferonasal quadrant of bulbar conjunctiva was observed.

White plaque was observed at the surface of the lesion (1x2mm). There was conjunctival and mild episcleral congestion.

MANAGEMENT

Considering the diagnosis to be OSSN, wide excision 4mm away from the mass using **no touch technique** was done. **Double freeze thaw** was done at the conjunctival margins. Using absolute alcohol, superficial keratectomy for the corneal lesion was done. Amniotic membrane was used to cover the defect using fibrin glue. **Topical steroids, antibiotics** (moxifloxacin and dexamethasone) and **lubricating drops** were started post surgery.

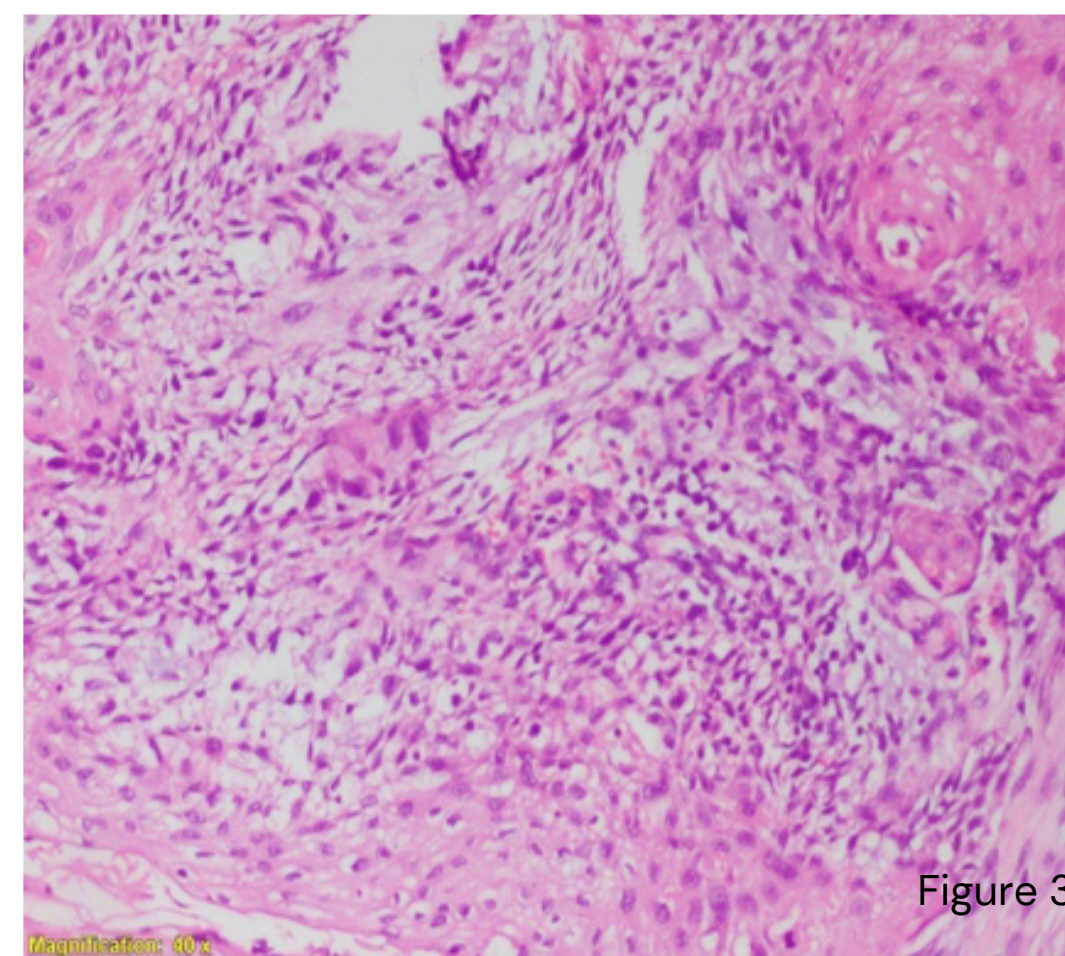


Figure 3.

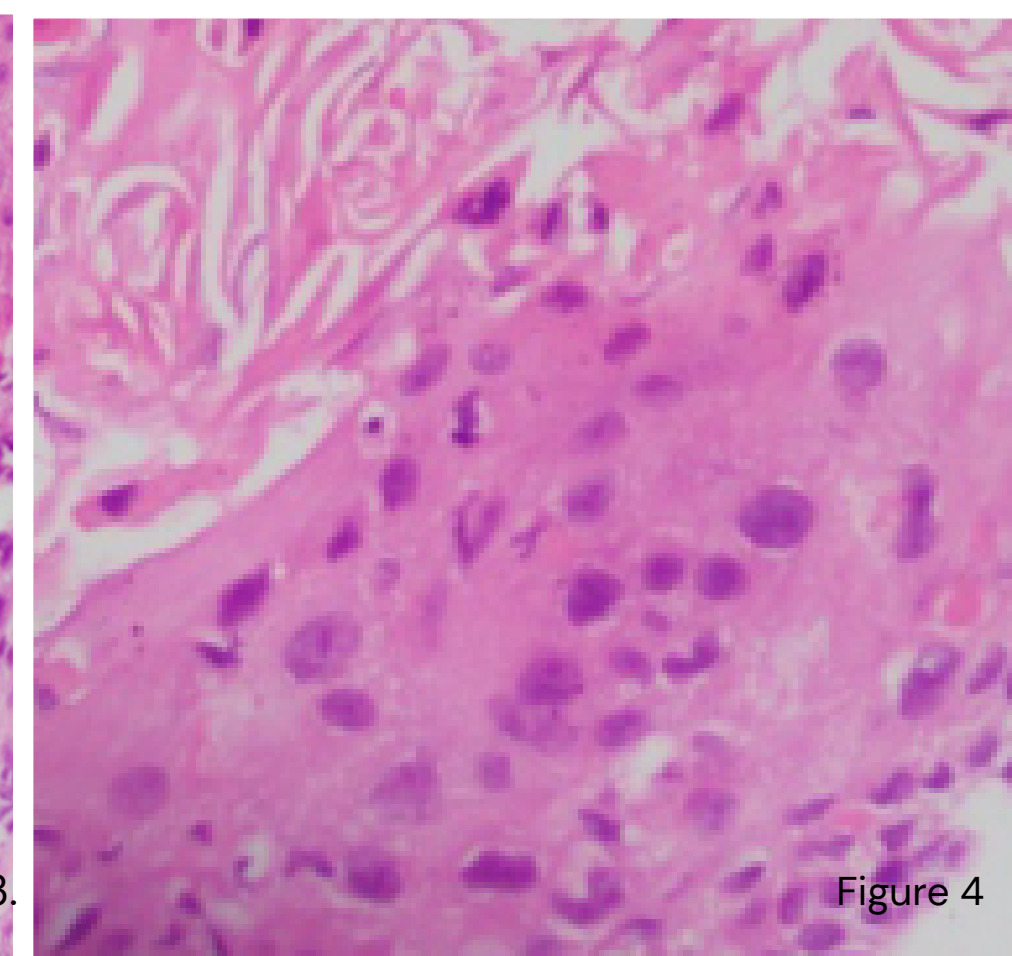


Figure 4

Figure 3 and 4 the subepithelial tissue shows **tumour cells arranged in nests. Hyperplasia, dysplasia, dyskeratosis, high N:C ratio, loss of polarity, hyperchromasia and nuclear atypia** seen.

DISCUSSION

OSSN is a malignancy which affects the conjunctiva, cornea or both. Circumscribed gelatinous lesion is the most common presentation which is also observed in this case. OSSN is seen mainly in **elderly** with marked **male** preponderance. It is closely related to HIV and HPV virus; however, in this case there is no such association. **Wide Excision with cryotherapy** is the standard treatment for majority of OSSN cases which was done in this case as well however; surgically excised lesions have a **one-year and five-year recurrence rate of 10% and 21% respectively**. The risk of recurrence depends on the the involvement of the surgical margins, the histological grade, location and size of the lesion along with the period of follow up. Interferon alpha-2b has a success rate between **81% and 100%** and has reported remarkable treatment outcome after usage.

CONCLUSION

A high index of clinical suspicion with timely and adequate surgical and medical management is required. **Wide excision with cryotherapy along with Interferon alpha 2b** is the gold standard treatment for this devastating condition.