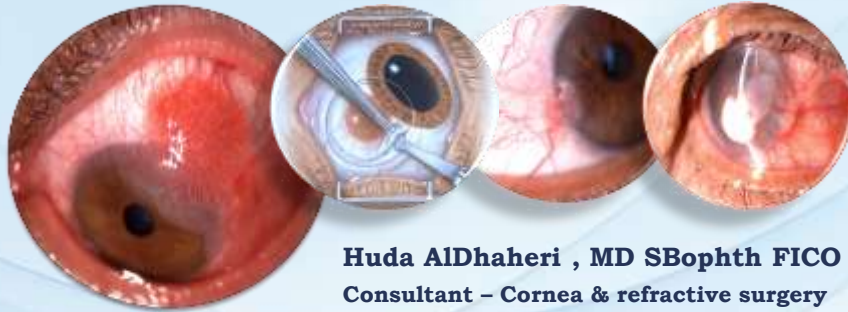


Ocular Surface Neoplasia

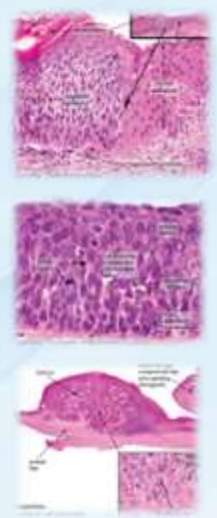
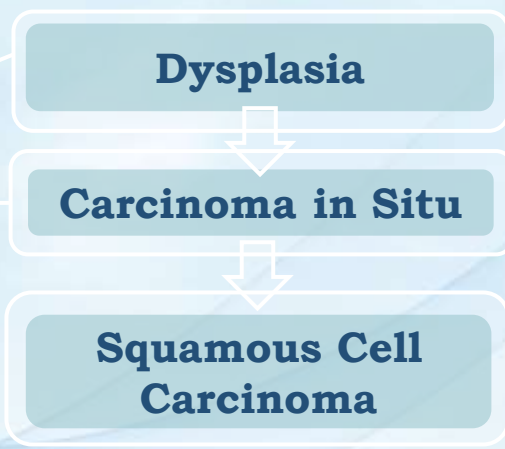
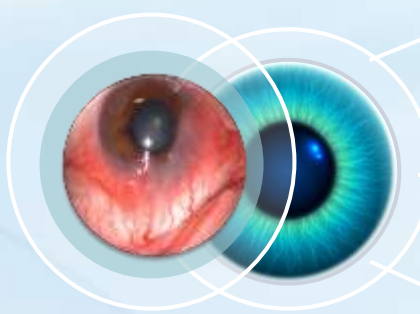
One disease with Different faces



Huda AIDhaheri , MD SBophth FICO
Consultant – Cornea & refractive surgery
Chief of Ophthalmology Division
Tawam Hospital - Al Ain - United Arab Emirate



Ocular Surface Neoplasia (OSSN)

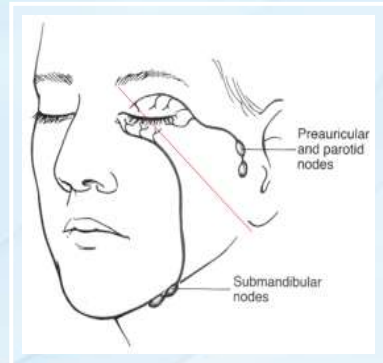
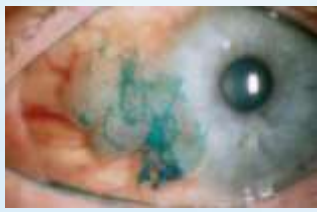


Diagnosis

- Leukoplakia
- Feeder Vessels
- Intrinsic Vessels
- Corneal Invasion
- Fixed to Sclera

75%
Limbus

Diagnosis



Lymph Nodes !

OSSN – Management :

Topical Chemotherapy

Surgical Excision

Radiotherapy

Targeted Therapy



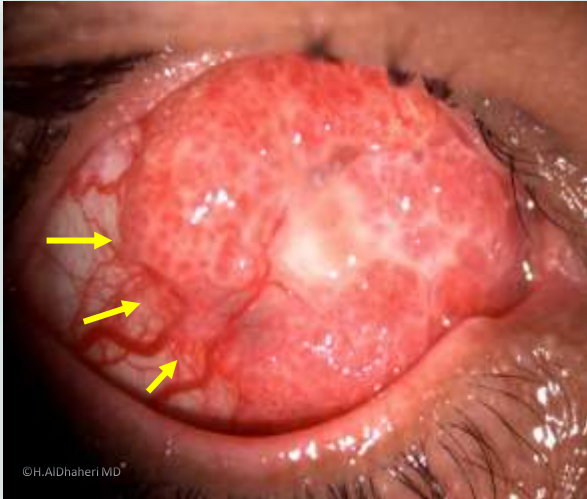
38 Yrs , M

- S/P Excision of Pterygium 4 yrs back .
- *Progressive - 8 M*
- Hx of Chronic HBV

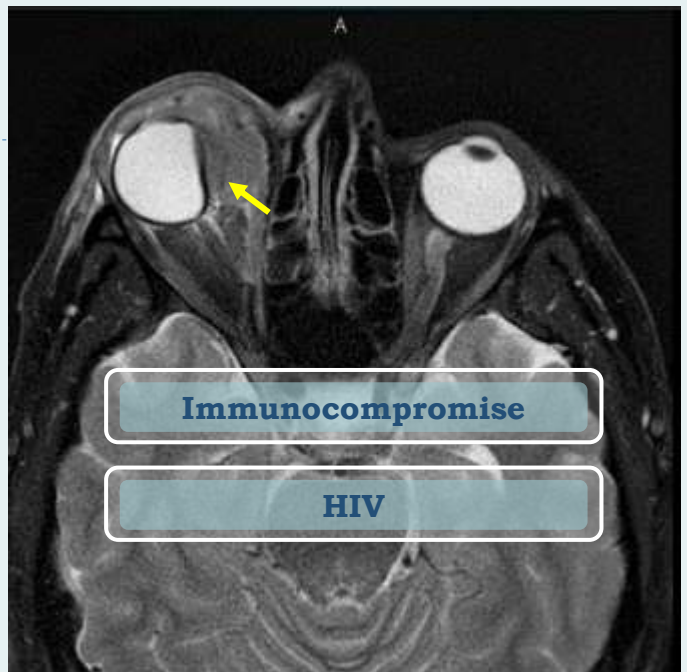


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38 Yrs , M

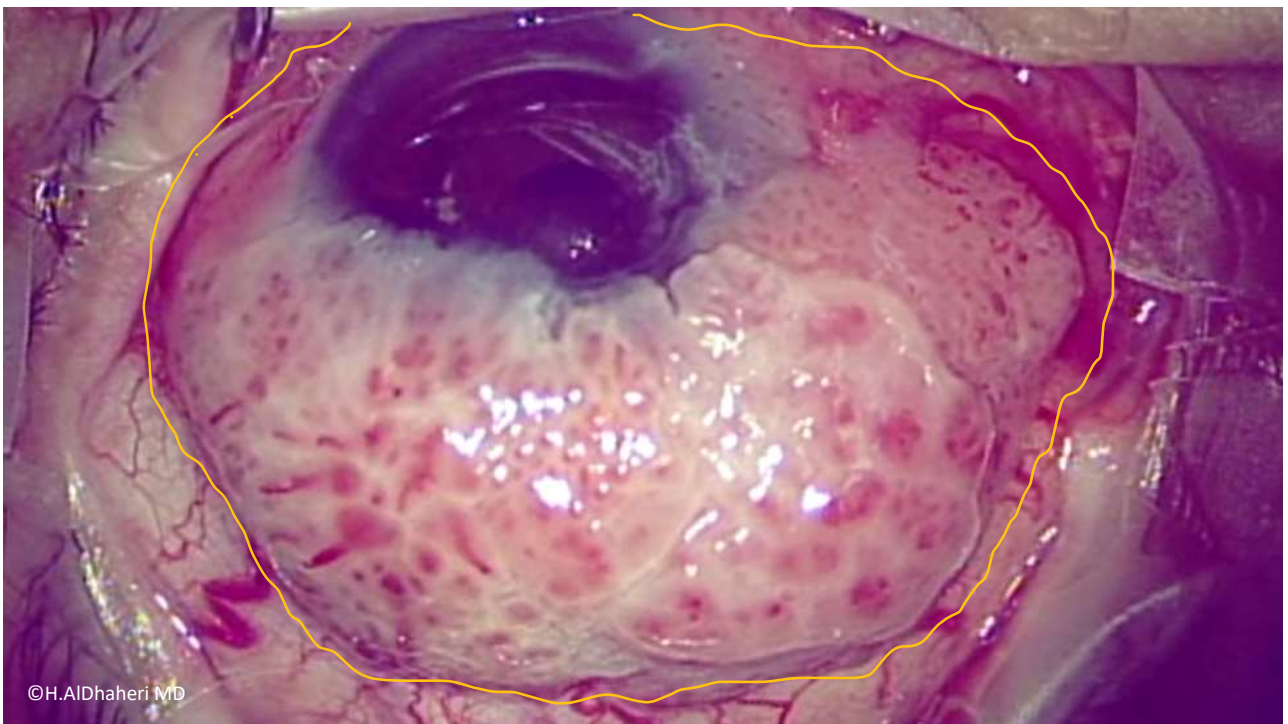
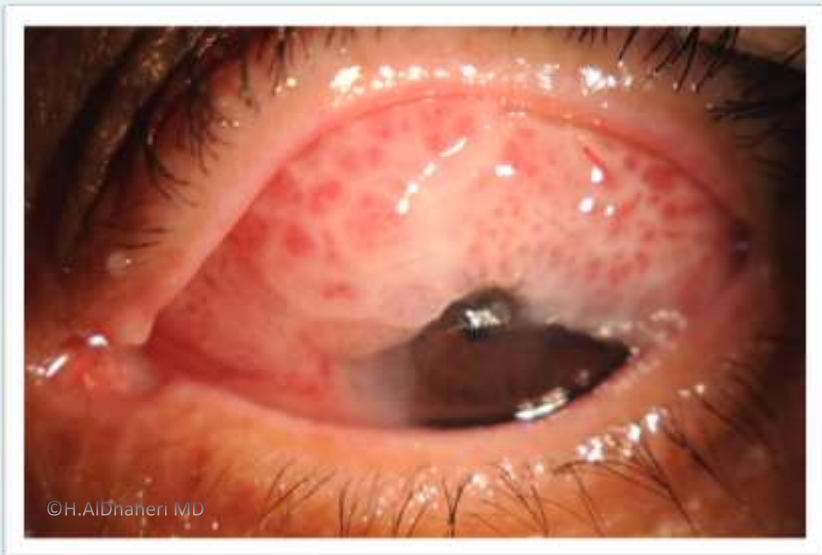


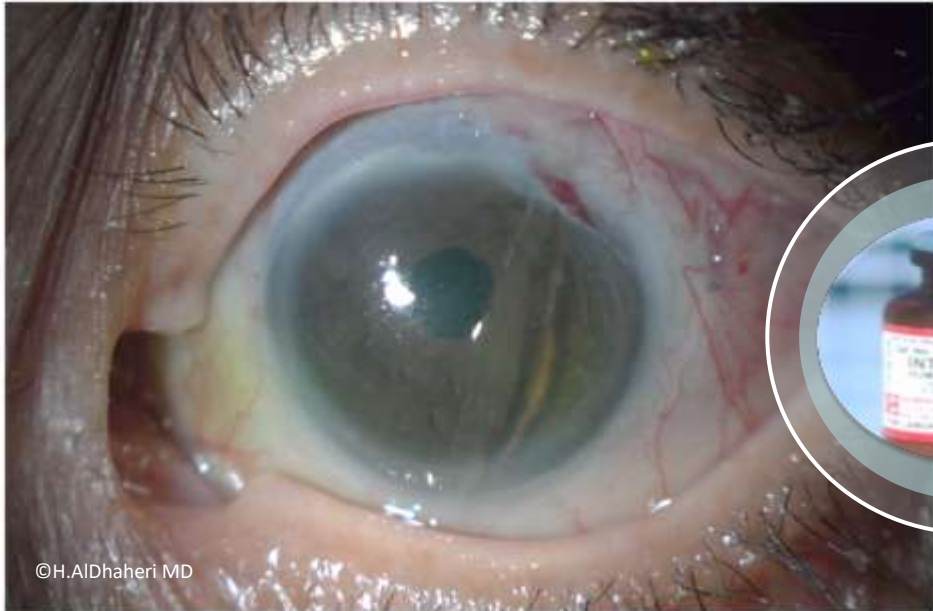
38 Yrs , M



73 yr , M

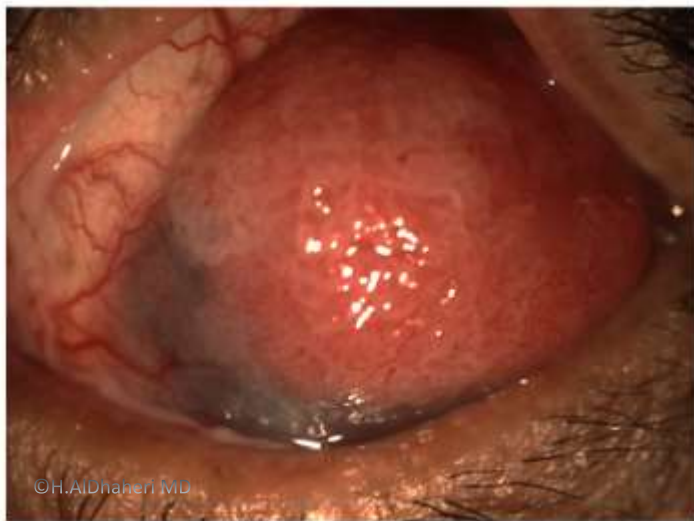
- Monocular , Good seeing eye
- *Progressive – 1yr*





89 yr , F

- Progressive growth
- **10 M**
- **PMHX** : DM



6 Week



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5-FU 1% Drops



68 yr , M

- Recurrent red eye / Herpetic Keratitis
- **Blind painful eye**
- Lesion Excised 1 yr back – recurrence

Corneal Kelloid



©H.AIDhaeri MD

50 Yrs , M



©H.AIDhaheri MD



Pigmented Squamous Cell carcinoma

60 Yrs , M



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?Hx of Lid lesion Excision



Pagetoid Spread of Sebaceous cell Carcinoma

OSSN – Management :

Topical Chemotherapy

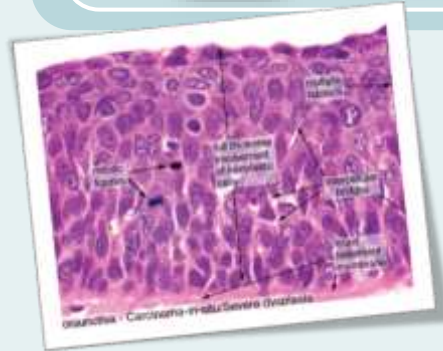
Dysplasia



Carcinoma in Situ



Squamous Cell Carcinoma



OSSN – Management :

Topical Chemotherapy

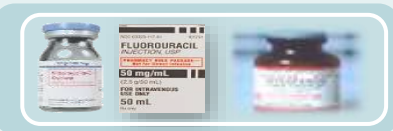


Table 1 Topical chemotherapy for ocular surface squamous neoplasia (OSSN)

Most common OSSN treatment options	Formulation	Dosage	Side effects
IFN-α2b	Topical: 1 MIU/ml (Alternative: 2-3 MIU/ml), Subconjunctival injections: 3 million IU/0.5 ml (Alternative: 10 MIU/month)	Topical: 4 times a day drops continuously, Subconjunctival: Weekly injections until resolution (typically 4-5 weeks)	Minimal side effects for drops, flu-like malaise with injections
5-FU	Topical: 1% drops	4 times a day for 1 week with 3 weeks off (Alternative: 4 times daily for 2 days to 4 weeks)	Mild pain, lid edema, epitheliopathy
MMC	Topical: 0.02-0.04% drops	4 times a day for 1 week followed by 2-3 weeks off until the eye is quiet. Usually 3-4 cycles until resolution (Alternative: 7-14 day cycles)	Pain, keratopathy, punctal stenosis, LSCD

LSCD= limbal stem cell deficiency; MIU= million international units; LSCD= limbal stem cell deficiency; MIU= million international units; IFN-α2b= interferon alpha 2b; 5-FU= 5-fluorouracil; MMC= mitomycin C

* Update on Pharmacotherapy for ocular surface squamous neoplasia .Eye & vision .2019

OSSN – Management :

Topical Chemotherapy

✔ **Immunotherapy**

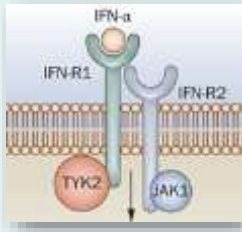
Tumor Control

Interferon α 2b



✔ **Immunoreduction**

Reduction in tumor size



✔ **Immuno modulation**

Enhancing immune system

OSSN – Management :

Interferon α 2b



LIMITED



INF α 2b (eye drops) 1 million /IU QID for 3-12 months



Injection INF α 2b 5-10 million monthly – Resolution

OSSN – Management :



Subconjunctival Anti-VGF: Variable results



Antiviral : Cidofvir
Limited studies
 shown *encouraging results*
 a **secondary treatment in multi-refractory OSSN**

67 yr , M



INF α 2b (eye drops)

1 million /IU QID for 4M



OSSN – Management :

Topical Chemotherapy



- Less invasive
- Chemo-reduction
- Target subclinical residual cells



- Lack of pathological confirmation
- Compliance
- Refrigeration (INF/MMC)
- Financial Burden

OSSN – Management :

Topical Chemotherapy



- Corneal OSSN
- Small/Superficial
- Large OSSN chemo-reduction
- Adjuvant Rx for +Margin



OSSN – Management :

Topical Chemotherapy



- ? Diagnosis
- Fixed to Sclera
- Suspicious of invasion
- *Poor Compliance*



OSSN – Management :

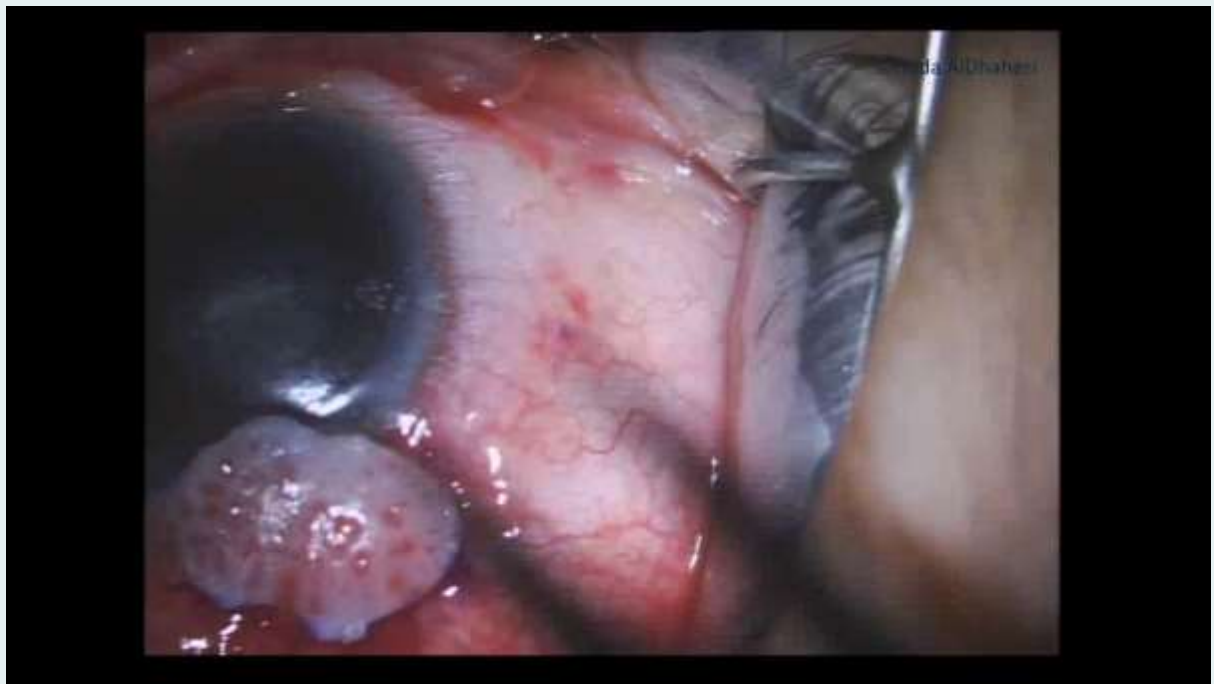
Primary Surgical Excision

- Pathological diagnosis
- Complete cure
- Cost –Effective

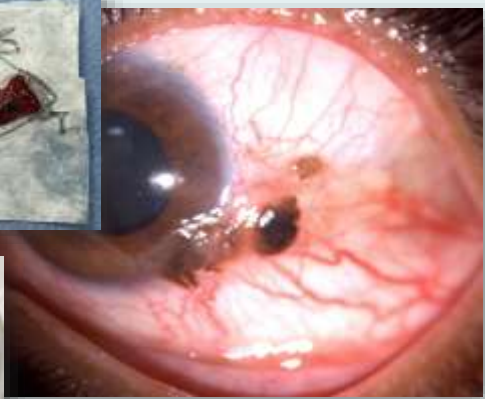
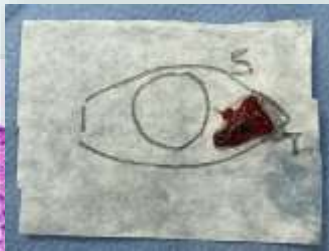
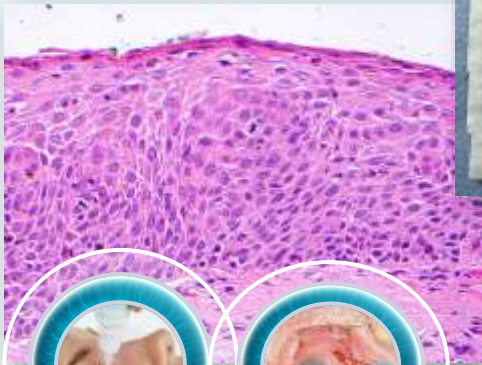


Gold Standard

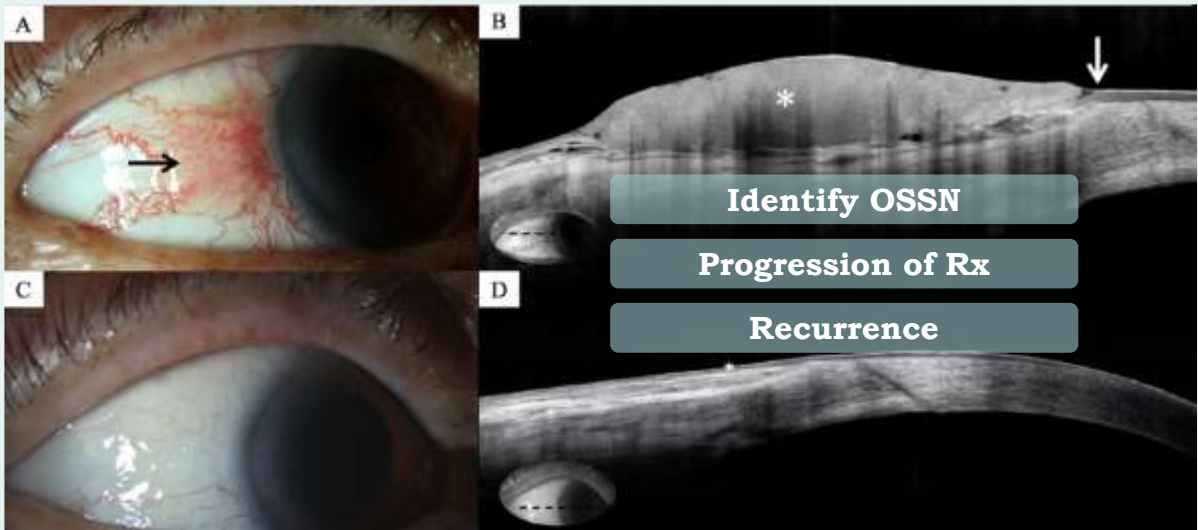




OSSN – Histopathology :



Anterior Segment OCT :



* Update on Pharmacotherapy for ocular surface squamous neoplasia .Eye & vision .2019

- **HR-OCT can detect subclinical OSSN in 17% of the cases that determined to be resolved clinically**



33 yr , M

- **Progressive – 2 M**
- **No Hx of Trauma**
- **No systemic disease**



Thickness

Hyper – reflective epithelium

**Abrupt transition from Normal
To abnormal epithelium**

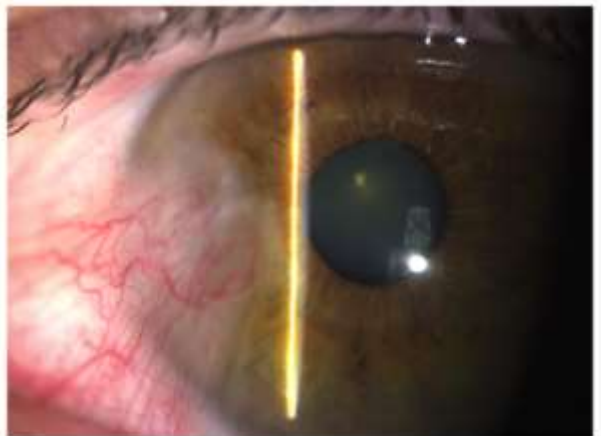




a well-differentiated squamous cell carcinoma with keratoacanthoma-like features

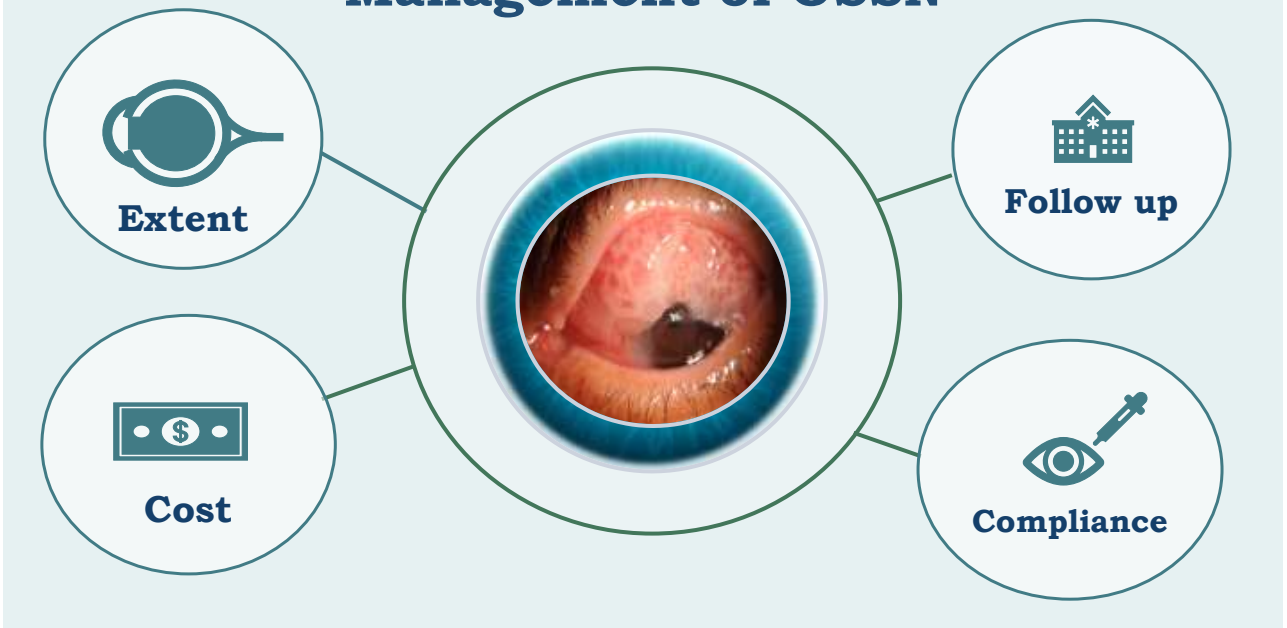
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OSSN & HR-OCT:



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Management of OSSN



Summary:

- **Through clinical assessment crucial**
- **Primary Surgical excision is a gold standard**
- **Topical Chemotherapy is effective in **selected cases****
- **HR- OCT can aid in diagnosis & assess progression with RX.**
- **HR- OCT is an “optical Mohs” to plane sx**



Save the Date

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