

CASE REPORT: A CASE OF OSSN MANAGED BY MITOMYCIN C

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INTRODUCTION

Ocular surface squamous neoplasia (OSSN) encompasses a wide and varied spectrum of disease involving abnormal growth of dysplastic squamous epithelial cells on the surface of the eye. It is the third most common ocular tumor after melanoma and lymphoma in old age. Management can be medical or surgical. Medical management include Mitomycin C, Interferon $\alpha 2b$ and 5-Fluorouracil (5-FU). It has the advantage of treating the entire ocular surface and avoiding surgical complications such as positive margins, scarring and limbal stem cell deficiency.

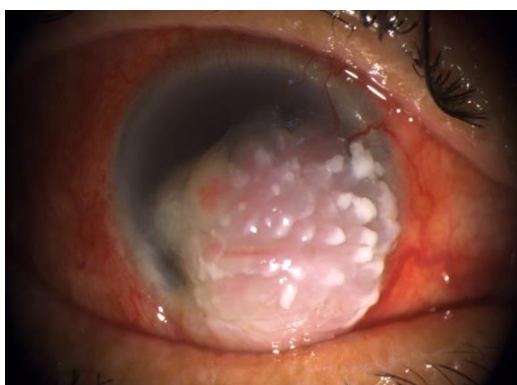
Relevant history

We here present a case of 75 years old male known case of diabetes, hypertension with history of whitish mass in right eye from 2.5 months which is increasing in size

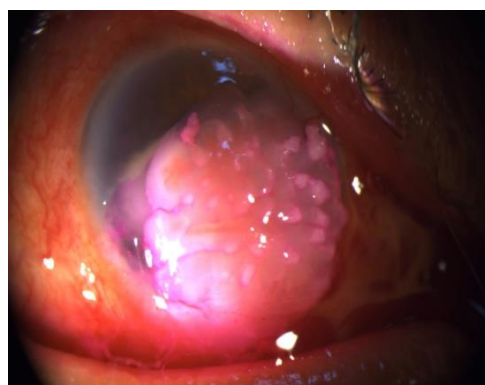
since then, diminution of vision in right eye from 2.5 months. DOV is progressive associated with pain, redness, watering and foreign body sensation in right eye.

Ocular examination

	OD	OS
UCVA	HMCF	6/9
IOP	Digitally normal	Digitally normal
Lids and <u>adnexa</u>	Normal	Normal
Anterior segment	Photo	Normal
Posterior segment	No view	Grade 1 hypertensive changes



As photo



Rose bengal staining

Patient was managed medically with E/d Mitomycin C 0.04% QID (1 week on, 1 week off), E/d Homide 0.5% BD, E/d CMC 0.1% QID. Complete resolution achieved by chemo-reduction followed by conjunctival biopsy and amniotic membrane transplantation.

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DISCUSSION

Ocular surface squamous neoplasia (OSSN) encompasses a wide and varied spectrum of disease involving abnormal growth of dysplastic squamous epithelial cells on the surface of the eye. OSSN is the third most common ocular tumor after melanoma and lymphoma in old age.

In the western hemisphere OSSN afflicts mainly Caucasian men 60's to 70's who live close to the equator. However in Africa and certain parts of Asia OSSN afflicts younger patients, more clinically aggressive. A similar pattern has been observed in patients with the human immunodeficiency virus (HIV) and xeroderma pigmentosum.

Mutagenic risk factors include exposure to UV-B radiation, infection with HPV, exposure to petroleum products, heavy cigarette smoking, chemicals such as (tri-fluridine, arsenicals, beryllium) ocular surface injury, Vitamin A deficiency, light pigmentation of the hair and eye, defective DNA repair in xeroderma pigmentosum, HIV infection and other immunocompromised states. Local risk factors include recurrent inflammation, trauma caused by eye rubbing in eczema/atopy, from poorly fitting artificial eye prostheses.

Management can be medical and surgical. Medical management can be done by topical chemotherapeutic agents include Interferon- α 2b, Mitomycin C, 5-Fluorouracil. Medical management has the advantage of treating the entire ocular surface and avoiding surgical complications such as positive margins, scarring and limbal stem cell deficiency.

Topical mitomycin C (MMC) has proven to be an efficacious treatment of OSSN. It is an anti-metabolite that alkylates DNA and disrupts the production of RNA. Studies have reported its efficacy rate to range from 80% to 100%. Punctal plug occlusion is advised to decrease the risk of punctual stenosis.

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