

Lid reconstruction after tumour excision in a patient with seborrhoeic keratosis: A case report

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ABSTRACT

Seborrhoeic Keratosis (SK) is one of the most common benign neoplasia of the eyelids, usually affecting elderly females. Typically, the lesions start as discrete, tan-dark brown, flat lesions starting on the face and progressing to other sun-exposed areas. The natural progression is generally an increase in size, thickness and pigmentation of these lesions. A variant of SK, Dermatitis Papulosa Nigra (DPN), has been described in black people, characterized by an earlier and more severe manifestation with multiple, profuse lesions. The diagnosis is clinical, although histopathological examination may be sought to confirm the diagnosis.

These lesions are benign and usually only removed for cosmetic reasons. However, in some patients, concern or discomfort may warrant removal. Cryosurgery, electrodesiccation, curettage or shave excision are all effective methods of management. When eyelid lesions are excised, the resulting anterior lamellar defect can be repaired by primary closure, local skin flaps or Full-Thickness Skin Grafts (FTSG).

We report a 60 year old female patient who presented with DPN and thick pigmented lesions on the eyelids of both eyes, causing mechanical ptosis, left lower lid ectropion and interfering with vision. She was successfully managed with excision and lid reconstruction for both eyes.

Keywords: Seborrhoeic keratosis, Dermatitis papulosa nigra, Eyelid tumours, Eyelid reconstruction, Eyelid excisional biopsy, Glabellar flap

INTRODUCTION

Seborrhoeic Keratosis (SK) is one of the most common benign neoplasia of the eyelids¹. It usually affects elderly people, with a female preponderance and some cases of reported family history². The exact cause is unknown and has been linked to sunlight exposure³. Typically, lesions are small, discrete and tan-brown flat macules, most frequently on the face and trunk⁴. With time, these lesions exhibit increase in size, thickness and level of pigmentation⁵. As they grow, the lesions become papules with the characteristic verrucous “stuck-on” appearance⁴. A variant of seborrhoeic keratosis, Dermatitis Papulosa Nigra (DPN) has been described in black people². This variant manifests earlier, with multiple and profuse lesions which are larger, thicker and exhibit a more chronic and worsening course than classic SK.

SK lesions are benign and do not usually require removal⁵. However, many patients present to dermatologists due to concern about possible skin malignancy when there is growth or increased pigmentation of the lesions⁶. Reasons for removal include cosmetic reasons, discomfort, itchiness or documented growth in the lesions. The diagnosis is clinical in majority of cases. However, especially if lesions are going to be removed, histopathological confirmation of the diagnosis may be sought. Histology of lesions is characterized by hyperkeratosis, papillomatosis, acanthosis with intraepithelial horn or pseudohorn cysts³.

There are several options for management including cryosurgery, electrodesiccation, curettage or shave excision⁵. Complications of treatment include hypopigmentation, hyperpigmentation and scarring⁷. In the eyelids, conservative surgical excision, followed by lid reconstruction to repair the ensuing anterior lamellar defect is preferred to preserve lid structure and function⁶. The type of repair depends on the size of the defect and whether the upper or lower lid is affected. Lower lid repairs usually utilize local flaps from adjacent upper eyelid, temple/cheek, and glabellar region, whilst upper lid defects may be repaired by flaps from the temple/supra-brow or glabellar regions⁸. Alternatively, Full Thickness Skin Graft (FTSG) may be harvested from the contralateral eyelid or the peri-auricular region may be used for both upper and lower eyelid reconstruction⁹.

CASE REPORT

A 45-year old female presented to the ophthalmology clinic as a referral from the dermatology clinic with a history of pigmented itchy lesions on the face and trunk since childhood. The lesions originated in the face and later involved the neck and trunk and upper extremities. Recently, they started increasing in size especially around the eyes, and interfered with her vision. She sought care at a local dermatology clinic, from where she was referred to our eye clinic. She had no past ocular disease and had some mental impairment since childhood, but no specific

diagnosis has ever been made. She was a mother of 2 children, now adults and well with no family history of a similar illness.

On examination, her vision was 6/60 and CF @ 2M for RE and LE respectively. She had multiple pigment lesions on the eyelids, face, neck, trunk and upper limbs (Figure 1). They were of varying sizes, raised, with greasy, corrugated, “stuck on” appearance. The lesions on the lids were of particular concern, as they were big enough to cause mechanical ptosis in both eyes, thus interfering with vision. The left eye also had lower lid ectropion from the weight of the lesion, with trichiasis and a corneal epithelial defect. There was inferior corneal pannus, suggesting the corneal irritation was a long-standing problem. Based on these findings, a clinical diagnosis of SK, the (DPN) variant, was made. Due to the threat to vision, she was planned for excisional biopsy of lesions with lid reconstruction for both eyes, starting with the LE (Steps 1-7).



Figure 1: SK lesions

(A) Hyperpigmented lid lesions causing mechanical ptosis

(B) Hypo- and hyperpigmented lesions on the trunk

Left eye shave excisional biopsy for both upper and lower lid lesions was done, leaving anterior lamellar defects in both lids. The lower lid defect was repaired by advancing a nasojugal flap (Figure 2).

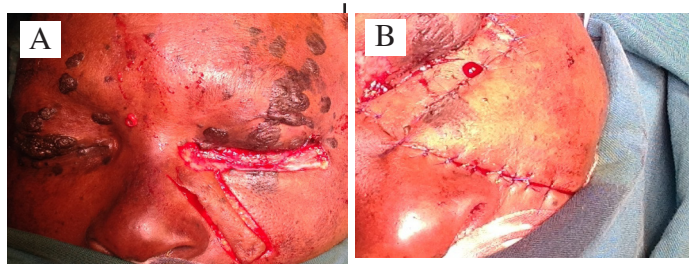


Figure 2: LE lower lid reconstruction with nasojugal flap (A) STEP 1- Lower lid lesion excised and nasojugal flap prepared. (B) STEP 2- Nasojugal flap in place

A glabellar flap was fashioned to cover the medial canthal defect and a full thickness skin graft from the preauricular area used to cover the upper eyelid defect temporally (Figure 3). 6-0 nylon sutures were used for all skin repair.

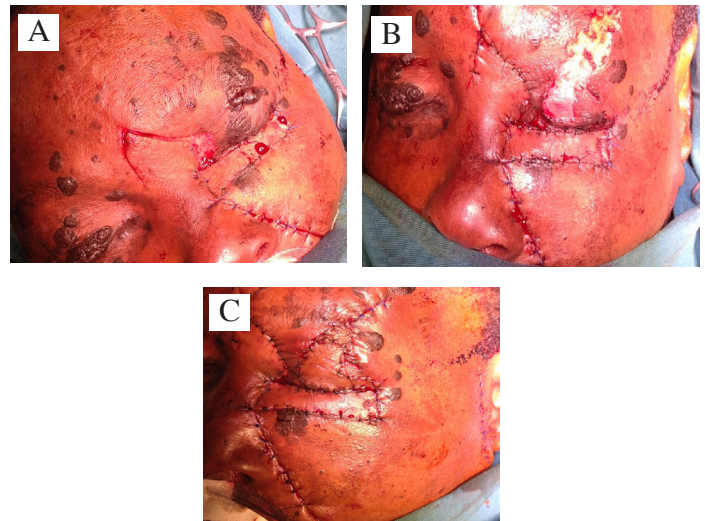


Figure 3: LE upper lid reconstruction with glabellar flap (A) STEP 3- Upper lid lesion excised and glabellar flap prepared. (B) STEP 4- Glabellar flap in place. (C) STEP 5- FTSG used for upper lid temporal defect

The right upper eyelid lesions were excised 3 weeks later also leaving an anterior lamellar defect. A FTSG from the pre-auricular area used to repair the ensuing anterior lamella defect (Figure 4).



Figure 4: STEP 6-Right upper lid lesion excised (A) and STEP 7- Lid defect repaired with a FTS (B)

Shave excision of smaller lesions without any repair was also done. Biopsy sample was sent to histopathology laboratory and the results confirmed the diagnosis of SK. two weeks after the right eyelid surgery, the patient was discharged home, with good cosmetic and functional results for both eyelids. She stopped attending the eye clinic one month after the right eye surgery.

DISCUSSION

SK is a common benign neoplasia of the eyelids¹. It usually affects elderly females, who may have a family history of SK². The lesions typically start on the face, and progress to involve other sun-exposed areas such as the neck, trunk and limbs³. Our patient exhibited the characteristic clinical presentation but with no documented family history. SK lesions start as flat to slightly elevated, tan-brown, discrete lesions, but with time exhibit increasing size, thickness and pigmentation⁵. DPN, a more severe variant of SK, has

been described in black people characterized by multiple and profuse, elevated, hyperpigmented papules on the face, neck, trunk and limbs². Our patient presented with the classic description of DPN.

Treatment of SK is usually not warranted until patients request removal of lesions for cosmesis or histopathological evaluation to rule out skin malignancy⁶. Our patient sought medical care due to lesions affecting vision in both eyes. Treatment options include cryosurgery, electrodesiccation, cautery and excision⁵. Most procedures are complicated by hypo/hyperpigmentation or scarring⁷. In the eyelids, scarring may significantly interfere with normal lid structure and function. Thus, conservative shave excision with repair of ensuing lid defects is usually preferred⁶. Our patient had two indications for urgent treatment. Firstly, she had lesions on upper eyelids causing mechanical ptosis in both eyes, thus interfering with vision. Furthermore and of greater concern, was the left lower lid lesion causing an ectropion and trichiasis with a corneal epithelial defect and pannus.

Our patient was admitted immediately for shave excisional biopsy of eyelid lesions and lid reconstruction, starting with the LE. The resultant medial canthus defect was repaired by a glabellar flap and the upper lid defect with a full thickness skin graft from the peri-auricular area. The lower lid defect was repaired by advancing a nasojugal flap. In elderly people due to increased skin laxity, local flaps from adjacent areas are often employed in lid reconstruction of defects up. These flaps bring their own blood supply and so have a faster healing and no chance of rejection. The glabellar flap can effectively be used to repair lid defects in the medial canthal area, with good cosmetic results¹⁰. It has the added advantages of a wide base and minimal collateral damage since the area lacks any vital structures. For our patient, the LE lower lid defect was repaired with a nasojugal flap. Lower lid repairs usually utilize local flaps from adjacent upper eyelid, temple/cheek, and glabellar region⁶.

Regional flaps can be used alone, or in conjunction with other lid reconstruction procedures for larger defects. Skin from the contralateral upper eyelid or peri-auricular area are readily available sources for FTSG⁹. Disadvantages of FTSG include contraction and risk of rejection. The right upper eyelid lesions were excised 3 weeks later and a FTSG from the pre-auricular area used to repair the entire resulting eyelid defect. The resultant cosmetic and functional result was good and the patient

was satisfied with the result. She stopped attending our clinics one month after the right eye surgery.

CONCLUSION

Seborrheic Keratosis (SK) is one of the most common benign tumour of the eyelids, showing a predilection for black, elderly females. When lid lesions are excised, appropriate techniques of lid reconstruction are important so as to preserve adequate eyelid structure and function. Regional skin flaps and FTSG can be employed successfully to repair eyelid defects after conservative tumour excision.

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