Ocular Adnexal Reconstruction for Cutaneous Periocular Malignancies

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Abstract

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Although the majority of lesions present in the periocular region are benign, periocular cutaneous malignancies are certainly not uncommon and must be considered. The management of nonmelanoma cutaneous malignancies is predominately surgical with Mohs micrographic surgery or excision with frozen sections. The approach to reconstruction of the resulting defects depends on the defect location and size. When able, it is preferable to close lesions directly or with the recruitment of adjacent tissue in an effort to preserve the inherent anatomy. The eyelid's dynamic function is thus maintained, which is essential for optimal ocular surface protection. However, larger and more extensive defects will require complex reconstructions that are able to restore the necessary structural integrity to the eyelids. The authors review the various reconstruction approaches for defects of all sizes involving the periocular area including nonmarginal defects and defects of the lower and upper eyelids, as well as those of the medial canthal region.

Although up to 84% of excised eyelid lesions are benign, periocular lesions account for 5 to 10% of the total number of cutaneous malignancies.¹ The approach to the treatment of malignant lesions is predominately surgical. The principles of defect reconstruction following lesion removal are reviewed here. Understanding these principles is useful not only for approaching reconstruction following malignant tumor excision, but also in the setting of trauma.

The surgical approach is similar for many cutaneous malignancies with melanoma being a notable exception, which is managed uniquely and requires sentinel lymph node biopsy. The most common periocular cutaneous malignancy is basal cell carcinoma (BCC), which accounts for 86% of malignant lesions, followed by squamous cell cancer (SCC; 7%), and sebaceous carcinoma (3%).¹ Basal cell carcinoma typically presents as a nodular lesion with central ulceration and a raised, pearly, telangiectatic border. It occurs most commonly in elderly, fair-skinned patients

and has a predilection for occurrence on the lower lid or medial canthal area.¹ Histological subtype is an important prognostic factor for patients with BCC.¹ The morpheaform subtype has a tendency to behave more aggressively than its nodular counterpart. Additionally, when present in the medial canthal area, there is a relatively higher predilection for orbital invasion. This is most common in patients with recurrent disease. Tumors in this location can also invade the adjacent lacrimal system.¹ Despite the risk of local invasion, metastatic disease is rare, occurring with an incidence of 0.003 to 0.55%.¹ Mohs micrographic surgery (MMS) is regarded as a gold standard treatment for patients with periocular BCC.^{1–4} A prospective study of over 800 patients demonstrated a 0% recurrence rate for primary periocular BCC and 7.8% for recurrent tumors at 5 years.¹

Similar to BCC, SCC occurs more common in elderly, fair-skinned individuals.¹ Additional risk factors for these

malignancies include sun-exposure and immunosuppression.¹ SCC is typically flat and ulcerated, and tends to behave more aggressively than BCC. It has a relatively higher incidence of lymph node metastasis and perineural invasion.¹ Unlike BCC and SCC, sebaceous carcinoma is more common on the upper lid. This is thought to be due to the greater number of meibomian glands relative to the lower lid. Sebaceous carcinoma can often masquerade as blepharitis due to its pagetoid growth pattern resulting in generalized lid erythema and thickening.¹ Although BCC and sebaceous carcinoma tend to be more locally invasive and destructive, SCC is more likely than its counterparts to metastasize via nerves, lymphatics, or hematological spread.¹

The primary approach to nonmelanoma periocular malignancies is MMS with secondary reconstruction. A review from the Mayo Clinic on the management of nonmelanoma skin cancers confirmed the superior efficacy of MMS compared with alternative modalities.² Additional therapies for BCC and SCC include electrodesiccation and curettage, cryotherapy, excision, and radiation. For primary BCC and SCC, MOHS was 97 to 99% effective at achieving a 5-year cure rate.² Excision with intraoperative frozen sections is an alternative treatment approach for nonmelanoma skin cancer.⁵ However, excision can require wide margins that may be problematic in the periocular area where sparing healthy tissues is an important consideration for optimal cosmesis and preservation of function.² A small, low-risk BCC or SCC tumor requires 4-mm margins, and high-risk lesions require 6-mm margins.² Because of this, MMS is the preferred technique for some surgeons.¹⁻⁴ This approach permits complete lesion excision with what some feel to be optimal pathological review of near 100% of the lesion margins. MMS is also able to achieve optimal preservation of healthy tissue.³ Initial margin control is important as outcomes are worse in patients with secondary excisions for recurrent disease.² A large prospective study of over 11,000 patients with BCC demonstrated that recurrent tumors were larger, demonstrated more subclinical extension, and resulted in larger postexcision defects relative to primary lesions.¹ Regardless of the method of lesion excision, the challenge continues with reconstruction of the resultant defect. Here we discuss an approach to reconstruction in the periocular area based on defect location and size.

Nonmargin-Involving Defects

Small lesions of the periocular area that do not involve the lid margin can be closed directly. However, direct closure of larger lesions can result in excessive wound tension and poor cosmesis. Though grafts can be used as an alternative form of closure, Anderson and colleagues highlight the advantages of using skin flaps in the eyelids and periorbital region.⁶ The authors note that in this region, the use of flaps are better able to maintain the original skin color and texture.⁶ Additionally, flaps undergo less contraction when compared with grafts and maintain their subcutaneous muscle layer, increasing durability and the intended surface contour to prevent the sunken appearance that can occur with grafts.⁶ Furthermore, a flap is able to maintain its own blood supply, as well as hair growth and subcutaneous secretions after tissue transfer.⁶

The shape or flap type depends on the shape and size of the wound. The simplest form of a skin flap is an ellipse; this is a form of a sliding flap that involves enlarging the wound to form an elliptical shape.⁶ When making an elliptical skin flap the following principles apply: The long axis of the ellipse should be parallel to the relaxed skin tension lines, the length-to-width ratio should be about 3:1, and the angles fashioned to be 30 degrees to avoid dog ear formation.^{6,7} Once designed, the new defect can be closed directly. The elliptical design can be further modified to form what Anderson and his colleagues describe as a double S-ellipse to limit the amount of sacrificed surrounding normal tissue.⁶

Alternatively, an advancement flap can be created. This is a pedicle flap adjacent to the wound that can be moved forward, without rotation to close the defect (→Fig. 1). In this technique, the designed flap segment should be 2 to 3 times the length of the defect.⁸ The flap is then undermined and dissected until it can be easily advanced without tension. In some cases, it is cosmetically preferable to round the advancing edge of the flap.⁷ An additional consideration for advancement flaps is to construct a broader base of the flap to optimize blood supply and decrease skin hooding.⁶⁻⁸ Further optimal closure and tension reduction can be achieved through the design of Burow's triangle at the flap base. The construction of Burow's triangles at one or both of the proximal flaps' ends reduces tension on the flap.⁷

Some lesions are better addressed with a rotational flap. This involves the rotation of adjacent tissue with movement

Fig. 1 (A) A patient postexcision of a basal cell carcinoma of the right upper lid. The dotted lines demonstrate the initial sites of incision to facilitate repair with an advancement flap. (B) The patient postoperatively and (C) on follow-up.

sideways rather than advancement into the defect.⁶ This rotation is at times able to transfer the tension that direct closure would otherwise create.⁶ The rotation flap can be designed to create anywhere from a 90 to 180 degree arc flap depending on the amount of rotation needed.⁷ Typically an arc of 90 degrees is created which will rotate 30 degrees to close an adjacent defect.⁷ The 90 degree arc flap is designed with a radius two to three times the diameter of the defect and a length of four to five times the width of the defect.⁷ Creating a Burow's triangle at the base of the rotational flap is again beneficial for minimizing tension and facilitating closure.

In circumstances where adjacent tissue is unavailable for advancement, tissue can be recruited for transposition. In this technique, tissue is transposed about a pivot point to fill an adjacent defect, and the donor site is then closed directly.⁶ The three main types of transposition flaps are a rhomboid flap, a Z-plasty, and a bilobed flap.⁶

Rhomboid flaps rely on creation of a parallel-o-gram surrounding the defect, with each side designed to be the same length.⁶ The rhomboid should have two 60-degree angles and two 120-degree angles. Next, four flaps are created around the rhombus along each edge. The flap design should place the flap borders along relaxed skin tension lines.⁷ Once the defect is closed, this flap design also helps to facilitate closure of the donor site (► **Fig. 2**). A disadvantage of this method of closure is that it does require enlarging the initial defect into a rhomboid shape that can sacrifice healthy tissue.⁷

The Z-plasty involves the creation of two interdigitating triangular flaps that are able to redistribute wound tension (► **Figs. 3, 4**).⁶ There are numerous variations of the traditional Z-plasty.⁹ In the traditional flap design, the two limbs of the Z are to be of equal length with desired angles of 60 degrees.⁹ Narrow flaps with angles of less than 45 degrees are at risk for compromised blood supply as the resultant flap length becomes too large in proportion to the flap base.⁹ Regardless of the variation chosen, it is important to consider that although a Z-plasty can lengthen a wound in one axis, it is at the expense of shortening in the other. Therefore, careful

Fig. 2 (A) A patient with medial canthal and medial left upper lid defect following basal cell carcinoma excision. The dotted lines demonstrate the planned sites of incision for construction of a rhomboid flap to repair the medial portion of the lesion. The upper lid was repaired with a myocutaneous advancement flap from the adjacent left upper lid (star). (B) The patient postoperatively and (C) on follow-up.

planning of the intended meridian of the resultant tension is important.⁹

A bilobed flap requires creation of two flaps that share a common base: One will serve to fill the donor site once the other is rotated to fix the defect (► **Fig. 5**).^{6,7} Similar to Z-plasty, there are numerous variations to this technique.^{10,11} The initial reported design was with two equal-sized lobes fashioned 180 and 90 degrees away from the defect.¹² One variation is the design of two unequal size triangles around a rhombic skin defect.¹¹ A second variation specifically

Fig. 3 A patient postexcision of squamous cell cancer of the left cheek with repair and employing an O-to-Z plasty. (A) The lesion preoperatively; the dotted lines indicate the planned incision sites. (B) The patient postoperatively.

Fig. 4 A patient postexcision of a basal cell carcinoma of the left lower lid and left cheek with reconstruction using a modified Z-plasty. (A) The patient showing the lesion following excision with demarcation of the planned areas of incision. (B) The patient postoperatively and (C) on follow-up.

designed for medial canthal reconstructions employs a superiorly based flap with larger angles than the traditional bilobed flap.¹⁰ This technique was described in a retrospective review of 18 patients with defects of the inferior medial canthus, nasojugal fold, and nasal sidewall.¹⁰ Among the benefits of this design are the placement of the secondary lobe scar along relaxed skin tension lines and the maximal use of tissue along the dorsum of the nose through superior-medial placement of the flap base.¹⁰

Fig. 5 A patient postexcision of a basal cell carcinoma of the right medial canthus and nasojugal groove. (A) The patient following excision with demarcation lines illustrating the planned area of incision for bilobed flap construction. (B) The patient postoperatively and (C) on follow-up.

General Principles of Eyelid Reconstruction

Reconstruction of the upper and lower lids can be more complex than reconstruction elsewhere due to the need to preserve eyelid anatomy and function. Maintenance of the lid anatomy is essential for corneal surface protection. The upper and lower lid are anatomically divided into separate anterior and posterior lamellar components, the extent of involvement of each of these layers will inform the approach for reconstruction.

The anterior lamella of the eyelid is composed of skin and underlying orbicularis muscle, and the posterior lamella consists of tarsus and conjunctiva. A small defect of the anterior lamella alone can be left to heal by secondary intention. This is limited to lesions that are less than 1 cm in diameter.¹³ Larger defects can be closed directly, particularly when there is redundant skin (► **Figs. 6, 7**). Direct closure can be facilitated by releasing tension via lateral canthotomy and cantholysis. When more tissue is needed to minimize tension, the reconstruction methods discussed above become necessary, namely, the use of myocutaneous advancement, transposition, or rotational flaps. Often a combination of several techniques is necessary (► **Fig. 8**). The recruitment of adjacent tissues for eyelid reconstruction is preferable to the use of a full-thickness graft. This is because the eyelid is exquisitely designed to be thin and dynamic to fulfill its role that demands mobility and flexibility.^{13,14} By using adjacent tissues in reconstruction, one is able to maintain the original architecture and achieve a more cosmetically pleasing result.¹³ Full-thickness grafts may compromise the site due to a change in color and texture of a grafted tissue.¹⁴

When necessary, however, the eyelid lends itself to full-thickness skin grafts (FTSGs) because of its rich vascular supply; FTSGs are an important alternative employed for anterior lamellar reconstruction.¹⁵ In full-thickness lid defects, tissue cannot be grafted for both the anterior and posterior lamella: One must be repaired with a flap to maintain its native blood supply to sustain itself and the over- or underlying graft tissue. In a prospective multicenter case series of 397 patients, the authors reviewed the complications encountered with FTSGs in the periocular region.¹⁵ Among the most common were hypertrophy, contracture, contracture-ectropion, trapdoor contracture, web contracture, infection, and hematoma.¹⁵ Partial and complete failure occurred in 12.9% and 1.6%,

Fig. 6 A patient with a margin-involving lesion of the right lower lid that was removed with a wedge excision and then repaired with direct closure. (A) The patient preoperatively, (B) postoperatively, and (C) on follow-up.

Fig. 7 A patient with margin-involving full-thickness defect, approximately 30% following excision of a basal cell carcinoma. The defect was closed directly. (A) The patient preoperatively, and (B) on follow-up.

respectively.¹⁵ Common FTSG donor sites for anterior lamellar reconstruction include the upper lid, preauricular and retroauricular skin, the neck, and the clavicular and supraclavicular area.¹⁵ Overall, the patients in this series did well with only 9% of patients requiring treatment for host-site complications.¹⁵

The approach to graft use in posterior lamellar reconstruction is dependent on the defect and whether there is a need to re-establish tarsal support to the eyelid. Many different graft options are available for providing graft support including a free tarsal graft and auricular cartilage, as well as hard palate grafts.^{15,16} Although traditionally used predominately for lower lid reconstruction, hard palate grafts have demonstrated safety and efficacy in upper eyelid reconstruction as well.¹⁷ The primary reservation behind its use in the upper eyelid is the potential for corneal damage. In a review of 31 patients, the authors noted that any corneal complications were transient and proposed an ultimate metaplasia of the graft mucosa to nonkeratinized epithelium.¹⁷

Lower Eyelid Reconstruction

As discussed above, the approach to eyelid reconstruction first requires the assessment of defect size along with whether it is limited to the anterior lamella or if it is full thickness. Again, lesions of the anterior lamella and full-thickness lesions can be closed directly based on size and patient-specific degree of skin laxity. The reconstruction of larger defects of the anterior lamella can be facilitated by the reviewed techniques of canthotomy/cantholysis or flap creation. Large defects of the lower lid limited to the anterior lamella can be repaired using a myocutaneous cheek-lift flap.¹⁸ This involves recruiting adjacent excess skin and muscle from the cheek area.¹⁸ This technique can be used in conjunction with a posterior lamellar graft in cases of full-thickness defects. The myocutaneous cheek flap can be supplemented with a lateral periosteal fixation to help support and maintain the final position of the lid margin.¹⁸

Fig. 8 A patient with a basal cell carcinoma of the right lower lid with secondary cicatricial lower lid ectropion (A), following the tumor excision (B), the patient was left with a large anterior lamellar defect of the right lower lid extending to the margin edge. This was repaired with reconstruction by margin wedge excision along with a pedicled myocutaneous flap from the right upper lid as well as a midface plication, and full-thickness skin graft from the left upper lid (C). (D) The patient postoperatively with the lower lid in an improved position.

Fig. 9 A patient with a basal cell carcinoma of the left upper lid (A), the lesion was excised with a wedge resection and repaired with direct closure (B).

A Mustarde flap, or rotational cheek flap, can also be used for larger anterior lamellar defects in the lower lid.^{18,19} The temporal aspect of the lid is mobilized along with an adequately sized portion of the adjacent supportive cheek tissue; collectively, the tissues are advanced nasally to close the defect.¹⁹ A Tripier flap can also be employed for anterior lamellar defects by transposing excess skin and orbicularis from upper lid to close a lower lid defect.^{18,20} This myocutaneous flap can be bipedicle or unipedicle, depending on the defect size.¹⁸ An advantage of the Tripier flap is maintenance of a blood supply without obstructing the palpebral fissure.

Fig. 10 Patient postremoval of basal cell carcinoma of the left lower lid resulting in a 25% defect that was too large for direct closure given the patient's age and skin tightness. Therefore, a Tenzel flap was performed. (A) The patient preoperatively; the dotted lines indicate the intended areas of incision. (B) The patient on follow-up.

Additionally, the Tripier flap maintains the underlying orbicularis, thereby optimizing flap support.^{18,20} A Fricke procedure can also be performed in cases of large anterior lamellar defects up to the size of the entire upper or lower lid.²¹ This approach involves recruitment of a cutaneous flap from the suprabrow. This is a two-stage procedure in which the unused temporal flap pedicle will later be reinstated to the original brow region approximately 2 months postoperatively.²¹

Fig. 11 A patient with a 35 to 40% full-thickness defect of the right lower lid following excision of basal cell carcinoma which was reconstructed using a Tenzel flap. (A) The patient preoperatively; the dotted lines indicate the intended sites of incision. (B) The patient postoperatively and (C) on follow-up.

Posterior lamellar reconstruction in lower lid repair is more forgiving in comparison to its superior counterpart (discussed below). The inferior tarsus is smaller and with less structural implications.¹⁴ Additionally, because the lower lid does not move against the corneal surface, the use of ear cartilage and hard palate grafts are better tolerated. Among the primary goals for lower eyelid reconstruction is providing adequate support to maintain the lower lid approximation to the globe. Again, small full-thickness defects can be directly repaired (►Fig. 9). A Tenzel semicircular rotational flap can be used to repair larger defects up to 60% of the eyelid (►Figs. 10, 11).¹⁸ This approach involves the creation of a semicircular incision extending from the lateral canthus, with undermining of the tissue to facilitate rotation. In this method, a lateral canthotomy is performed in conjunction; therefore, the lateral canthus must also be reconstructed.^{13,18}

When greater than 50% of the posterior lamella is involved, surgeons can consider a modified Hughes procedure (►Fig. 12).^{18,22} This involves advancement of a tarsoconjunctival flap from the upper lid to the lower lid. The original Hughes flap was a three-stage procedure in which the mucocutaneous layer and the tarsus of the upper lid were split from the anterior lamella and fashioned to close the lower lid defect.²³ In the initial procedure, Mullers muscle or the levator aponeurosis were not transected from the tarsoconjunctival flap.²³ This was paired with the upward advancement of the adjacent cheek tissue for anterior lamellar repair.²³ Four months following the initial procedure the shared posterior lamella was split.²³ This procedure often resulted in donor-site morbidity—namely retraction and upper lid entropion.²³ Modifications since its original description have optimized outcomes. Specifically, the transection of Mullers muscle and the levator aponeurosis in establishing the flap decreases the likelihood of postoperative donor-site morbidity.²³ Additionally, the incision is made 4 mm from the margin to preserve tarsal stability for the upper lid.²³ Once the posterior lamella is repaired, the overlying anterior lamellar defect can be reconstructed with a free graft or flap from adjacent tissue. A free tarsoconjunctival graft from the upper lid can alternatively be performed; however, reconstruction of the anterior lamella must be with adjacent tissue to maintain vascular supply.

Upper Eyelid Reconstruction

As with lower lid reconstruction, the size and degree of lamellar involvement will dictate the technique used in upper lid reconstruction. The approach to reconstruction of the upper lid defects is similar to that for the lower lid. Anterior lamellar defects of the upper lid are approached with many of the same techniques discussed above including myocutaneous advancement, transpositional, or rotational flaps, along with the Fricke procedure and Tripiet flap. Unlike the lower lid, however, there is not the wealth of adjacent cheek tissue to further facilitate reconstruction, thus making some anterior lamellar defects of the upper lid more challenging.

Full-thickness lesions of the upper lid also pose more of a reconstructive challenge as the superior tarsus plays a more important role in structural integrity relative to the lower tarsus.¹⁴ Again, for small defects less than 33% of the lid margin, direct closure can be performed as long as it does not place excess tension on the wound.¹³ For larger lesions, a Tenzel flap, as discussed above, can be employed to facilitate closure. Larger lesions require the recruitment of tarsoconjunctival tissue to reconstruct the posterior lamella. A sliding tarsoconjunctival flap makes use of adjacent healthy tissue in the upper lid.¹⁸ After the posterior lamella is addressed, the anterior lamella is then reconstructed with a flap or full-thickness graft. A free graft cannot be used for the reconstruction of the anterior and posterior lamellae because there will be inadequate blood supply to the donor tissue resulting in graft failure. For 30 to 60% full-thickness upper-lid defects, the posterior lamella of the lower lid can be shared for upper lid reconstruction (known as a pedicle lower-lid-sharing procedure).¹⁸ This technique involves the transfer of part of the lower lid margin to the upper lid.¹⁸ A full-thickness flap of the lower lid margin is created centrally and then rotated superiorly and sutured in the upper lid defect.¹⁸ Depending on the size of the defect, this flap may be done in conjunction with a Tenzel flap or canthotomy/cantholysis.¹⁸ The donor site can then be repaired with direct closure.¹⁸ A lower eyelid bridged advancement flap or Cutler-Beard flap can be used in very wide or total full-thickness defects of the upper lid. In this technique, a full-thickness flap is constructed in the lower lid and advanced and sutured into the upper lid defect.^{8,18} The lower lid flap should be incised at least 5 mm from the margin

Fig. 12 A patient postexcision of a basal cell carcinoma of the right lower lid, with a near 100% defect. The posterior lamella was repaired using a Hughes tarsoconjunctival flap and the anterior lamella was repaired with a full-thickness skin graft taken from the left upper lid. (A) The patient preoperatively, (B) postoperatively, and (C) on follow-up.

Fig. 13 Patient with left medial canthal defect following basal cell carcinoma excision repaired with a glabellar flap. (A) The patient preoperatively with the dotted lines indicating the sites of intended incision. (B) The patient postoperatively and (C) on follow-up.

to avoid compromising the inferior arcade and lower lid tarsus.¹⁸ However, the use of this flap may not provide adequate support to the upper lid. For this reason, some surgeons use a separate cartilage graft.¹⁸ The flap is divided at 4 to 6 weeks postoperatively.¹⁸ Reconstruction of the posterior lamella can alternatively be achieved with tissue grafts. These may be from the nasal septum, the hard palate, the contralateral upper lid, or oral/nasal mucosa.¹⁵

Medial Canthal Reconstruction

Lesions of the medial canthus pose a particular challenge because of the many different contours in this region.^{8,10} Fortunately, small defects in this area can be left to heal by secondary intention with good overall results.^{8,10} Direct closure of lesions in this area can introduce a tendency for scarring and webbing. Webbing is more likely to occur with excessive wound tension. Depending on the size and specific location of the defect, the local flap techniques discussed above may be employed, namely the transposition flaps (rhomboid flaps and bilobed flaps).¹⁰ Another alternative to direct closure in this region is the use of a medial forehead transposition flap. A glabellar muscle flap is undermined over the nasal bed until it is freed, leaving the base intact.⁸ The flap is then transposed over the brow into the medial canthal defect. The forehead defect can be closed directly (→ **Figs. 13, 14**).⁸ Botulinum toxin has been used to aid in healing for optimal cosmesis.^{24,25} In these cases, it can be applied to the forehead to minimize tension on the closure and facilitate optimal healing. Because of the multiple contours and skin types in the medial canthal region, areas of the flap filling a lower eyelid defect may require thinning. There may be a residual elevation at the base of the flap that can be subsequently thinned after the flap has healed for 2 to 3 weeks.

Postoperative Care

Scar prevention and optimal wound healing begins with the intraoperative technique. Surgical planning of wound incisions along relaxed skin tension lines and meticulous homeostasis and wound closure with maximal eversion are critical for optimal cosmesis.²⁶ Standardized postoperative management has not been established as many oral supplements and

topical medications have not been shown to have a statistically significant impact on patient outcomes.

The postoperative use of a topical emollient promotes wound healing. Moist exposed-burn ointment was tested in comparison with topical antibiotic and wounds left to heal with exposure to open air in 60 patients.²⁷ The patients

Fig. 14 Patient postexcision of a left medial canthal basal cell carcinoma, medial canthal defect repaired using a glabellar flap in conjunction with a full-thickness skin graft taken from the adjacent left upper lid. (A) The patient preoperatively, (B) postoperatively, and (C) on follow-up.

who received the moist exposed-burn ointment had less hyperemia and less postinflammatory hyperpigmentation than the other groups in the study. Additionally, as referenced above, botulinum toxin A has also been demonstrated to prevent scarring in facial surgery, by reducing tension on the wound edges during healing through the minimization of movement of the underlying musculature.²⁵

Conclusion

Periocular malignancies constitute 5 to 10% of cutaneous malignancies.¹ Excision with frozen sections and MMS are both effective techniques for lesion removal and margin control. A systematic assessment of defect size and location should dictate the approach to periocular reconstruction. A thorough understanding of eyelid anatomy and function must also play an important role in the selection of the reconstruction method.

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