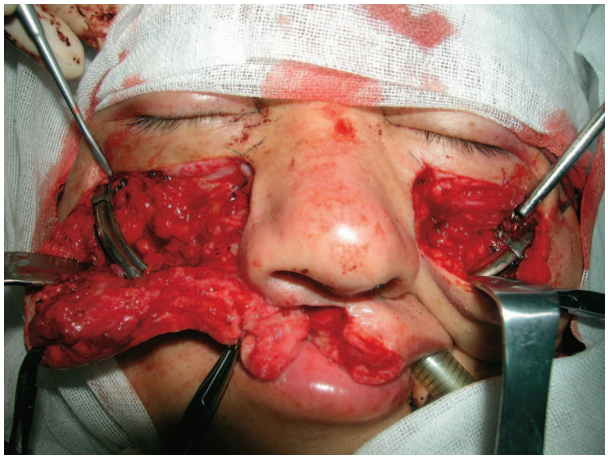

Fig. 1. Internal curvilinear distraction osteogenesis of the zygoma was performed on the patient with the bony transport disks made on the remaining zygomas and the distractors installed bilaterally.

were distracted around an arc approximately 20 mm on the right side and 15 mm on the left. For 4 months of consolidation, the density of new bone was close to that of normal bone. The part of lost maxilla was reconstructed and bony support was set up in the low position of the maxilla (Fig. 2).

In patients with large maxillary defects, the remaining bone in the defective side is very scarce, without enough bony support, and reconstruction is very difficult. Our idea is to restore part of the lost maxilla by distraction osteogenesis of the remaining zygoma and set up bony support in the low position of the maxilla to form the basis for later functional reconstruction.

Today, most distractors reported are straight[1,2]; only a few of them are curvilinear, but all can be used for distraction osteogenesis of the mandible.[3–5] The zygoma and maxilla are curved structures and in the midface. Thus, we developed a new internal curvilinear distractor to fit the zygoma. Every part of the distractor is made from titanium alloy. It is small and light, and can be installed subcutaneously. The curvature of the vector of the device is derived from measurements of 20 dry human skulls. The central bar is made from nickel titanium alloy, which is flexible and durable. By revolving the flexible central bar, the movable part can be advanced along the curvilinear vector, and then distraction of the zygoma transport disk around an arc can be accomplished. Except for the distraction activator being exposed in the temporal region, most of the distractor can be buried.

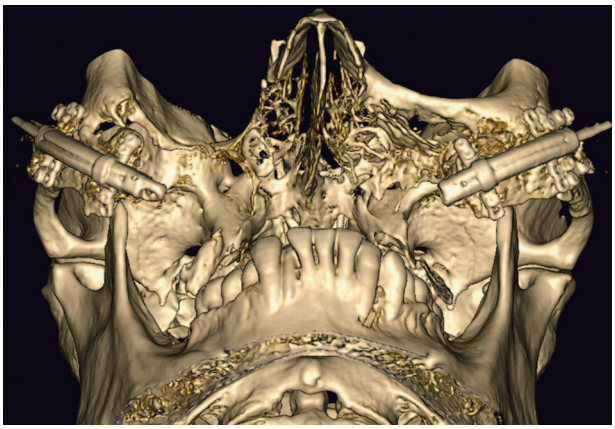

Fig. 2. After 4 months of consolidation, the regenerated bones showed almost normal calcification and density. The bony support was set up in the low position of the maxilla.

After 4 months of consolidation, new bone had formed well in the distracted gap, part of the zygoma had been "transported" to the low position of the maxilla for implantation, and the prosthesis might get sufficient support and retention from it for mastication reconstruction to be achieved. Also, with bony support, bone transplantation can be considered. That is, the procedure has formed a good basis for later functional reconstruction.

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Herpes Zoster after Reconstruction for Head and Neck Cancer

Sir:

Patients with cancers of the head and neck are at significant risk for herpes zoster.[1] The morbidity of zoster in this region can be severe, including

encephalitis, blindness, deafness, and refractory neuralgia.[2] Prompt initiation of antiviral therapy significantly reduces the risk of morbidity; however, establishing the diagnosis of zoster can be difficult after reconstruction. Tissue rearrangement and mobilization of distant tissues can distort or efface classic dermatomes, hindering identification of zoster. Surgeons performing reconstruction for head and neck cancer must be aware of postoperative zoster and take measures to guard against associated morbidities.

A 68 year-old man presented with painful rash on the right side of his face (Fig. 1). His history included reconstruction of a right cheek defect after wide excision of squamous cell carcinoma. The patient was admitted for wound care and empiric antimicrobial coverage including acyclovir (10 mg/kg intravenously every 8 hours). Polymerase chain reaction and immu-

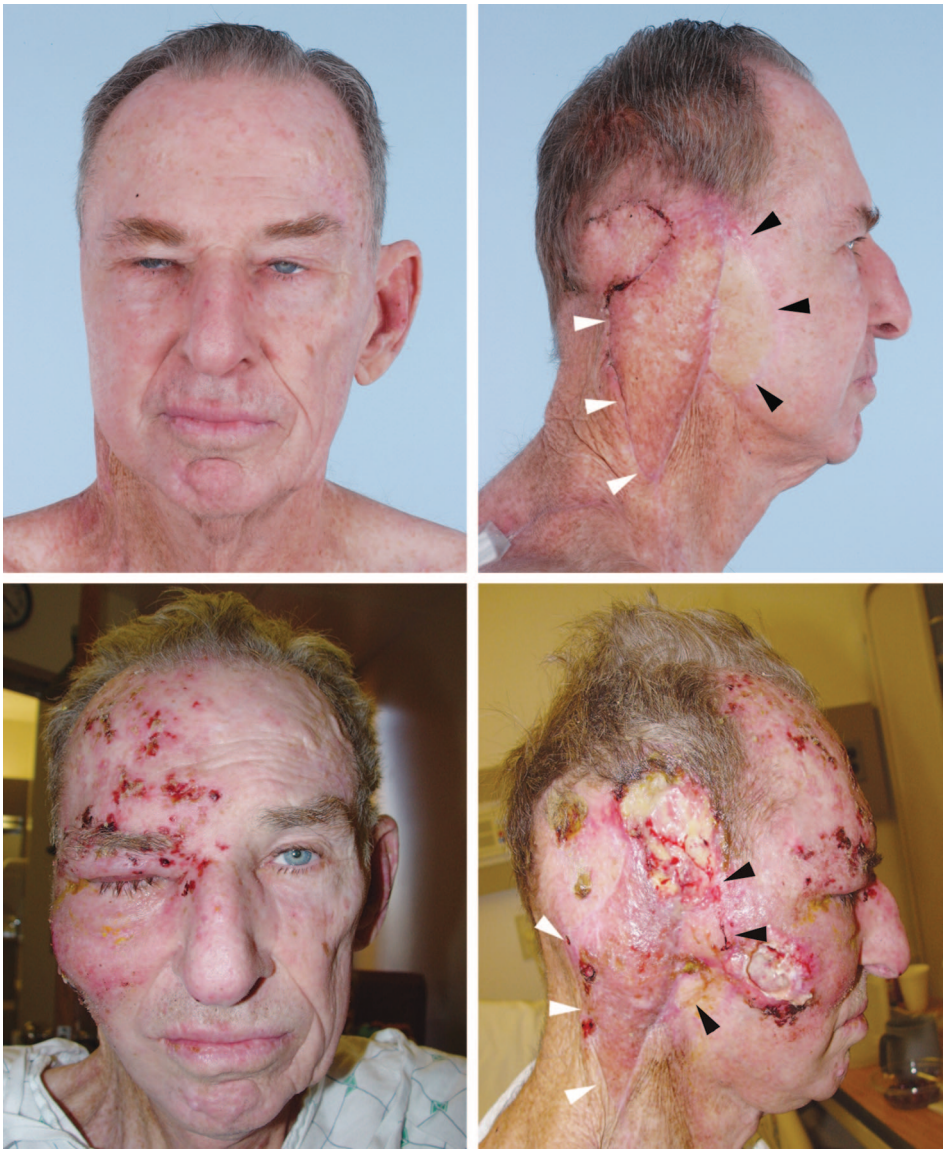

Fig. 1. (*Above*) A 68-year-old man with a history of recurrent squamous cell carcinoma of the right cheek after head and neck reconstruction with free anterolateral thigh flap (*black arrowheads*), pedicled trapezius myocutaneous flap (*white arrowheads*), and local tissue rearrangement. (*Below*) Six months after completing reconstruction, the patient presented with unilateral facial pain, a vesicular rash in the distribution of the trigeminal nerve (V_1 and V_2 branches), and soft-tissue ulceration. Flap tissue was relatively spared from involvement, even though it is contiguous with the area of cutaneous lesions.

nofluorescence data from lesion scrapings confirmed the diagnosis of zoster. By the third hospital day, the patient had marked resolution of his symptoms and was discharged on oral acyclovir.

We have observed an additional five cases of zoster in 350 head and neck reconstructions at our institution, yielding an incidence of 1.7 percent. In our series, the diagnosis of zoster was frequently hindered by dermatome distortion from tissue rearrangement, coexisting radiation dermatitis, suspicion of recurrent cancer, and misdiagnosis as bacterial infection. Islands of flap tissue typically remained unaffected, whereas surrounding native tissues demonstrated characteristic cutaneous lesions.

More than 90 percent of U.S. adults carry latent varicella zoster virus and are at risk for herpes zoster.[3] Factors associated with varicella zoster virus reactivation are age older than 50 years, tumor-induced defects in cell-mediated immunity,[4] and surgical intervention. Head and neck cancer patients frequently meet all of these criteria, and should be considered to be at high risk for zoster. Antiviral therapy with oral acyclovir, valacyclovir, or famciclovir should be initiated within 72 hours of clinical presentation to maximize benefits of treatment.[5] For immunocompromised patients and patients with complicated presentations such as herpes zoster ophthalmicus, intravenous acyclovir should be initiated and converted to an oral agent after evidence of disease regression.

Herpes zoster is a highly morbid condition that can be triggered by therapy for head and neck cancer. As the diagnosis of zoster can be difficult in the postreconstructive period, a high index of suspicion and close attention for a history of neuropathic pain preceding cutaneous lesions are crucial to facilitate prompt initiation of therapy. When managing postoperative soft-tissue infections in this population, zoster should be included in the differential diagnosis, and empiric antivirals should be considered to minimize the potential for severe complications.

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DISCLOSURE

Neither of the authors has any conflicts of interest to disclose.

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A New Technique for the Treatment of Lagophthalmos in Patients with Stabilized Exophthalmos in Graves-Basedow Disease

Sir:

Fewer than 5 percent of patients require treatment for moderate or severe thyroid disease, which could produce visual impairment. The rest of the patients present with a stable exophthalmos, and aesthetic concerns are the main reason for treatment.[1,2]

Several surgical techniques are included in the many forms of orbital decompression to treat this disease by orbital osteotomies. Nonetheless, postoperative complications have been reported in association with these procedures.[1]

Another alternative is the removal of orbital fat via the transpalpebral approach using the technique described by Olivari.[1,2] This technique is associated with much lower morbidity compared with the techniques that involve osteotomies, and the occurrence of diplopia and other complications is diminished. The technique we propose is an easy way to solve the problem of lagophthalmos in these patients that provides an aesthetic improvement and with minimal morbidity.

Using a transpalpebral approach with a longitudinal incision, the levator palpebrae superioris muscle and its aponeurosis are meticulously dissected. The aponeurosis is then separated from its insertion in the anterior aspect of the tarsus and carefully separated along with the Müller muscle from the external aspect of the conjunctiva.

Once total control of these structures is gained, a double rotation-translation flap is projected in the distal corners of the aponeurosis of the levator palpebrae superioris muscle (Fig. 1). The flaps are then fixed to the corners of the cephalic margin of the tarsus using a 5-0 absorbable suture (Fig. 2). These flaps cause an increase of approximately 4 to 6 mm in the total excursion of the superior palpebra, allowing complete closure of the eye and rendering the exophthalmos less evident. The skin of the eyelid is then sutured with 5-0 nylon.