

than primary position Hess screen deviations (which may be a normal finding), I predict that they would find, as we have, that their type I patients had little difficulty with postoperative diplopia, whereas their type II patients would show an alignment shift toward the area of decompression proportional to the amount of retroplacement achieved.

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Author reply

Dear Editor:

We thank Drs Nunery and Tao for their interest in our article. We agree that patients without motility restriction preoperatively are less likely to develop new-onset diplopia postoperatively in comparison with patients with motility limitation. In our previous report,¹ we found that deep lateral wall orbital decompression with intraconal fat removal is associated with an average 3.4-mm decrease in exophthalmos (less than with medial and inferior walls); most patients with preoperative primary gaze diplopia and motility restriction (type II patients) will have diplopia postoperatively (83%). In addition, patients who develop new-onset diplopia in our group were older, had more limitation in ocular motility preoperatively, and achieved a more robust decrease in exophthalmos postoperatively. Thus, our findings are in line with Dr Nunery's report that preoperative motility status can predict outcome postoperatively.

The more decompression achieved with surgery, the more globe displacement is anticipated and, perhaps as a consequence, increased likelihood of new-onset diplopia. Surgeries in our series were graded based on the degree of congestion and exophthalmos, as Drs Nunnery and Tao suggest. Independent of this presumed relationship between amount of proptosis reduction and rate of postoperative diplopia, the deep lateral approach may produce less consecutive strabismus. Medial wall and inferior wall decompression causes inferomedial displacement of the muscle cone in addition to retroplacement. By comparison, deep lateral wall orbital decompression focuses on removal of bone in the marrow space directly posterior to the globe, so that there may be less muscle cone shift and less consecutive strabismus; this was supported by our findings using an automated Hess screen.²

We did perform subgroup analysis of patients without primary gaze diplopia preoperatively (end of "Results") and found no correlation between the changes in ocular deviation and preoperative exophthalmos (Pearson bivariate correlation).

Sixty-three percent of our patients reported primary gaze diplopia despite a very low degree of measured deviation in an automated Hess screen. We agree with Drs Nunnery and Tao that this is counterintuitive, but it was our observation; we postulate that congestive orbitopathy can cause subtle, perhaps intermittent, symptomatic ocular misalignment.

In summary, our findings are similar to those in Dr Nunery's previous reports,^{3,4} and automated Hess testing may represent a more accurate way of assessing ocular alignment in thyroid-related orbitopathy patients.

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Treatment of Unilateral Congenital Ptosis

Dear Editor:

A frontalis suspension sling procedure is considered the gold standard for the treatment of poor-function congenital ptosis, and a bilateral approach is recommended for the treatment of unilateral forms by most authors.^{1–3} Advocates of bilateral surgery claim an improved symmetry during eyelid closure and blinking and in down gaze. On the other hand, bilateral surgery puts both eyes at risk of postoperative complications such as lagophthalmos, exposure keratopathy, upper lid entropion, eyelash ptosis, absent eyelid crease, overhanging skin fold requiring blepharoplasty, and superior oblique palsy.² In a recent article, Kersten et al reported a 95% rate of good to excellent results in a large series of patients affected by unilateral poor function ptosis who underwent a unilateral frontalis sling.⁴ Their series

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included patients from 3 months to 95 years of age affected by neurogenic, myogenic, posttraumatic, and congenital ptosis. The sling material used in their study included silicone, polytetrafluoroethylene, and fascia lata. As pointed out by Seiff in a commentary on this article, the sling material used and age of the patient at time of surgery may influence the results of frontalis suspension surgery⁵; therefore, we focused our study on the results of a unilateral frontalis suspension sling with autologous fascia lata in children affected by poor-function unilateral congenital ptosis only. We retrospectively reviewed the charts of 20 consecutive children affected by severe unilateral congenital ptosis who underwent unilateral frontalis suspension sling surgery from 2001 to 2005 at 2 different institutions, using the same surgical technique described by Kersten et al.⁴ Mean follow-up time was 25 months (range, 6–48). All 20 patients had levator function of <4 mm, a poor or absent crease, and eyelash ptosis; 3 patients had associated Marcus–Gunn synkinesis, whereas amblyopia was diagnosed in 2 patients. The results were evaluated with spontaneous or active brow elevation and were considered excellent when MRD¹ was 4 mm or more, good when MRD¹ was ≥ 3 mm, fair when MRD¹ was ≥ 2 mm, and poor if MRD¹ was below 2 mm. According to MRD,¹ we found that 11 patients had an excellent result (55%), 4 patients a good result (20%), and 2 patients a fair result (10%). The remaining 3 patients had a poor result (15%) and included 2 amblyopic children. Symmetry was considered good or excellent (eyelid margins within 1 mm of each other) in 16 patients (80%), fair (eyelid margins within 2 mm) in 2 patients (10%), and unsatisfactory in 2 patients (10%). Postoperative complications included mild lagophthalmos under gentle closure, ranging from 1 to 4 mm (average, 1.6), but only a minority of patients required lubrication overnight, and no patients showed signs or symptoms of exposure keratopathy. Down-gaze asymmetry was also common, being present in 18 patients (90%) but noticeable in 2 patients only, and both patients declined further intervention.

The advantages of preserving the healthy eyelid in patients affected by unilateral ptosis include an improved acceptance of the procedure by the parents, reduced surgical risks, and a shortened operating time. We believe that the presence of spontaneous preoperative brow elevation in the affected side may predict the success of the unilateral sling procedure, with the sling making only more efficient this natural tendency. We observed spontaneous compensatory brow elevation in most nonamblyopic children who achieved excellent postoperative results. In conclusion, we recommend unilateral frontalis suspension for the treatment of the unilateral forms of poor function congenital ptosis in nonamblyopic children. We found that amblyopic patients are at increased risk for undercorrection if treated unilaterally, and therefore, a bilateral approach might be preferable in these patients. Although this study is biased by its retrospective nature and the relative small size of the sample, the preoperative presence of spontaneous unilateral brow elevation seems consistently to correlate with excellent surgical results with unilateral suspension in our series.

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Extraocular Muscle Myositis

Dear Editor:

Injections in the glabellar region can be associated with ocular complications, as the area is rich in arterial anastomoses.¹ Injections in this area may reach several different arteries, among them the ophthalmic artery and the retina's central artery, or the choroidal circulation and cause blindness.¹ Polymethyl methacrylate (PMMA) as microspheres is used to fill facial wrinkles¹ as a subdermal implant. The microspheres are deposited permanently in the tissue, and as they are completely involved by collagen fibers, they increase the tissue's thickness,¹ providing stable results.

Orbital myositis is an inflammatory disorder of the extraocular musculature. The common symptoms associated with the disorder are pain during ocular movement, periorbital edema, diplopia, ophthalmoplegia, ptosis, conjunctival ecchymosis, and proptosis.^{2–4} The diagnosis of myositis of the extraocular muscle may be confirmed by computed tomography (CT) scan, which demonstrates contrast alteration, muscle enlarging, and irregularity.^{2–4} The diminished flexibility of the extraocular muscle, seen in the ultrasonography, is also a typical finding associated with myositis.^{2,3}

We have treated a 47-year-old white female patient, who underwent PMMA injection administered by a plastic surgeon, with the intention of correcting wrinkles. She developed myositis of the extraocular musculature. Soon after the injection, the patient developed eyelid ptosis on the left and diplopia due to extraocular muscle dysfunction in the left eye. At this point, prednisone (60 mg) was prescribed for 15 days, and after this initial period, the dose was gradually reduced, completing the treatment in 60 days. The patient said that 2 days after starting the treatment she experienced regression of symptoms, and the ptosis disappeared. During the ophthalmologic assessment, 12 days after the procedure there was a –3 hypofunction of the left medial rectus muscle and a –2