The paramedian forehead flap is a widely used reconstructive option for patients with a variety of nasal defects. Benefits of the forehead flap include skin color match, relative ease of harvest and inset, and minimal donor site morbidity. However, one of the major drawbacks of the forehead flap is the 2-stage nature of the procedure, which produces a temporary soft-tissue bridge before division of the pedicle in the second stage. In addition to temporary disfigurement, this soft-tissue bridge also significantly interferes with the patient’s ability to wear eyeglasses. In this report, we describe one patient’s novel approach to this issue by modifying a pair of eyeglasses to accommodate the soft-tissue bridge during the interval between the first and second stages of reconstruction. To our knowledge, this is the first such report in the literature and has the potential to be applied widely to patients undergoing this form of nasal reconstruction.

CASE REPORT
The patient had a malignant lesion of the nose requiring a resection of the nasal tip and subsequent reconstruction with a forehead flap. The patient’s glasses were created with the assistance of a local optometrist by modifying a commercially available frameless model with rectangular lenses. The original “nose pad” bridge was removed and replaced with a metal saddle bridge (no nose pads). The bridge connects to the lenses with 2 posts that insert into 2 small holes in each lens (Fig. 1). This bridge was permanently fixed to the right lens; however, the left side of the bridge was modified to allow it to easily disconnect from the left lens. The left-sided posts were wrapped in small plastic bushings (available at most optometrist offices), and the congruent holes in the left lens were slightly widened with a file. This allows the left lens to be attached or detached from the bridge as the patient desires when taking the glasses on and off around the forehead flap. Also, the absence of nose pads makes delivery of the glasses under the forehead flap much easier. The bridge is insulated with a soft rubber tube, which prevents irritation of the flap and nose (Fig. 2). The glasses passed easily under the forehead flap and are comfortable for daily wear (Fig. 3).

DISCUSSION
The forehead flap procedure is performed in a staged manner: the first stage consists of flap dissection, rotation, and inset into the soft-tissue defect. This produces a soft-tissue bridge, which many patients consider to be cumbersome and unsightly. The flap is then given 2 to 3 weeks to mature and form new vascular connections within the wound bed. The second stage of the procedure is then carried out by dividing the pedicle and removing the excess tissue from the flap and/or skin bridge. When performed correctly, the paramedian forehead flap produces excellent cosmetic results with minimal donor site morbidity. Complication rates after surgery are low, making this flap a mainstay of treatment in nasal reconstruction.
Primary drawbacks of the forehead flap include donor site scarring, wound care, an unsightly soft-tissue “elephant trunk” created by the undivided pedicle, increased time off work, and inability to wear eyeglasses. Of these, the inability to wear eyeglasses has perhaps the most direct effect on the patient’s ability to perform activities of daily living and is underappreciated in the elderly population in particular, many of whom do not wear contact lenses. The inability to wear their glasses results in impaired ability to read, drive, or perform other basic activities during the 2 to 3 weeks between surgeries. For some patients, this prohibits the use of the paramedian forehead flap for nasal reconstruction in otherwise surgically appropriate candidates.

In an attempt to minimize the inconvenience associated with the temporary skin bridge that patients must deal with between the first and second stages of reconstruction, several approaches have been proposed. One such approach has been an attempt to accelerate pedicle division and thus decrease the time between the first and second stages of reconstruction. Kendler described a protocol whereby the pedicle was divided at 1 week; however, this method ultimately required a total of 3 stages of reconstruction. Suroamo achieved promising results with his 1 week accelerated takedown, but cautioned against its use poorly controlled diabetes or heavy tobacco users. Surowitz and Most, who studied division of the pedicle at 2 weeks, agreed with the careful selection of appropriate patients based on comorbidities and smoking status when determining how long to delay the second stage. Several authors have even described single-stage nasal reconstruction using the forehead flap but have noted increased rates of complications that have the potential to ultimately compromise the reconstruction.

An option that may be recommended to patients with forehead flaps is magnetic reading glasses; however, magnetic reading glasses that join at the bridge have many disadvantages compared with this system. They are uncomfortable and considerably heavier than the glasses described in this report. Additionally, the cost of new glasses may be substantial for some patients, especially considering only 2 to 3 weeks of use. Patients may also have difficulty finding a suitable prescription and lens that works with a magnetic bridge, whereas the system we describe...
can modify most frameless glasses. They can continue to use their glasses after their second stage and can even plan reverting them back to their original bridge with minor modifications.

Another option may be a bridge that passes over the pedicle rather than underneath it. Such a bridge would not require a “connection” by the patient and would therefore be easier to remove. However, the creation of a custom bridge that loops over and around the pedicle is likely beyond the capabilities of most eyewear providers, whereas the method described here uses parts already available. In addition, an extended bridge over the top and sides of the flap could compress the pedicle and cause congestion or ischemia. A bridge that passes over the flap, however, could be a suitable alternative and will be explored in the future.

CONCLUSIONS

In this report, we describe an affordable, simple, and effective modification that can be applied to eyeglasses that allows the patient to continue wearing their prescription eyewear during the time interval between the first and second stages of their reconstruction. To our knowledge, this is the first such report of its kind. Given that aging, spectacled population are at higher risk for skin cancers and thus are more likely to be a potential recipient of a forehead flap, this report not only presents a solution to a vexing problem but also encourages the design of other creative answers for our patients.

PATIENT CONSENT

The patient provided written consent for the use of his image.

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