The Use of Alloderm Static Slings in Facial Paralysis

Jennings R. Boyette, MD; Emre Vural, MD

University of Arkansas for Medical Sciences

ABSTRACT

Objective: To study the use of Alloderm static slings to rehabilitate mid and lower face paralysis and improve long-term clinical outcomes.

Study Design: Case series with chart review

Setting: Tumor and microsurgery medical center

Subjects and Methods: A total of 13 patients underwent 14 alloderm static sling procedures to suspend the mid and lower face following procedures such as graft-free tissue transfer, not indicated for, not treated by, many head and neck cancer patients, especially those with a desire for immediate improvement. Therefore, static slings are an excellent option in the reconstruction of patients with facial paralysis. Autologous fascia lata has classically been used; however, donor site morbidity, added operative time, and tendency to stretch with time have led to interest in other materials. There has been considerable interest in the use of synthetic materials such as Alloderm due to its potential for surrounding tissue ingrowth and presumably less infection and extrusion. However, long-term results of Alloderm as a sling material are still unknown. We describe our technique of using Alloderm static slings and report the long-term outcomes of patients managed by this technique.

RESULTS

Thirty-nine patients have undergone 14 Alloderm static sling procedures (Table 1). One patient with facial nerve palsy underwent bilateral lower face procedures. Postoperative results are shown in Table 1. All of the patients either did not qualify or did not desire other potential options for rehabilitation. Thick Alloderm cut to a width of 2 - 2.5 cm was used. After repositioning it was stapled at the level of the commissure and then sutured to the temporal muscle which was the upper and lower to the deep temporal fascia. Postoperative evaluation consisted of demonstrating symmetry at rest and patient’s active assessment of success of the procedure, which included resolution of drooping, eating disabilities, and speech difficulties.

METHODS AND MATERIALS

Rehabilitation of the paralyzed face necessitates patient-specific treatment. Newer, individual patient characteristics and goals, may be accomplished by nerve reinnervation techniques or dynamic or static suspension techniques. More complex procedures, such as graft-free tissue transfer, may not be indicated in, not treated by, many head and neck cancer patients, especially those with a desire for immediate improvement. Therefore, static slings are an excellent option in the reconstruction of patients with facial paralysis. Autologous fascia lata has classically been used; however, donor site morbidity, added operative time, and tendency to stretch with time have led to interest in other materials. There has been considerable interest in the use of synthetic materials such as Alloderm due to its potential for surrounding tissue ingrowth and presumably less infection and extrusion. However, long-term results of Alloderm as a sling material are still unknown. We describe our technique of using Alloderm static slings and report the long-term outcomes of patients managed by this technique.

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CONCLUSIONS

We believe that pre-implantation stretching of Alloderm minimizes delayed elongation and allows suspension technique to maximize and maintain symmetry. Alloderm static slings have a place in facial paralysis. Our results indicate that pre-stretched Alloderm facial slings do not significantly change in the long run.