Trismus Release after Previous Free Flap Reconstruction: Surgical Approach for Severe Recurrent Cases

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BACKGROUND AND PURPOSE: The three most common causes of trismus are oral submucous fibrosis, orofacial gangrene in malnourished children and cancers of the head and neck. Very often, they share the same triad: fibrosis of the soft tissue of the cheek, masticatory muscles and osseous overgrowth. In severe cases, this will eventually lead to severe pain, weight loss and poor oral hygiene.

The goal of this study is to describe a surgical algorithm for patients with recurrent trismus, who were previously treated with free tissue transfer.

MATERIAL AND METHODS: Between 2010 and 2015, all patients diagnosed and surgically treated for severe recurrent trismus (IO <15mm) were analyzed. Demographics, cause of trismus, history of radiation, prior flap used, pre and post surgery IO distance were recorded. In addition, release of the contracted oral mucosa, removal of the coronoid process, medial pterygoid tendon release, resection of the angle of the mandible, pseudojoint reconstruction and type of free flap used were analyzed.

RESULTS: A total of 54 patients were diagnosed with severe recurrent trismus (IO<15mm). All 54 patients were male. Their average age was 43 yo (range: 27 to 68 yo). The most common cause of trismus in our population was cancer. 75% received preop radiation. All 54 patients underwent release of the contracted oral mucosa, 43 removal of the coronoid process, 47 medial pterygoid tendon release, 9 resection of the mandibular angle, 5 pseudojoint reconstruction. Among these cases, 7 were reconstructed using an ALT flap, 45 radial forearm flap and 2 with a medial sural flap. Pre and Post surgical IO were 7 (0–9) and 26 (18–32) mm respectively. Univariate analysis showed that the combination of surgical procedures such as release of the contracted oral mucosa (p<0.04), removal of the coronoid process (p<0.03), medial pterygoid tendon release (p<0.05), resection of the mandibular angle (p<0.04) and pseudojoint reconstruction (p<0.05) were associated with an overall improvement of the IO aperture.

CONCLUSION: Trismus is a debilitating disease with devastating consequences if not treated appropriately. Based on this experience, patients treated for severe recurrent disease should undergo a more aggressive surgical release in order to achieve a wider IO distance and relief of symptoms. However, further studies with a longer follow-up are required to rule out further recurrence.

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AESTHETIC SESSION 1

Polymethylmethacrylate-Collagen for the Correction of Moderate to Severe Atrophic Acne Scars: Results of a Randomized Double-Blind Multicenter Study with 12 Month Follow-Up

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BACKGROUND: Polymethylmethacrylate (PMMA)-collagen [Bellafill] consists of PMMA microspheres suspended in a carrier of bovine collagen gel. A Randomized Double-Blind
study demonstrated the safety and effectiveness of this product in correcting atrophic acne scars. Results of the 6-month endpoint was previously described in Karnik et al. To determine the continued benefit of PMMA-collagen for atrophic acne scars, and confirm the original findings over a longer time period, the study was continued through 12 months follow up.

OBJECTIVES: Demonstrate PMMA-collagen is safe and effective in correcting moderate to severe atrophic acne scars using the validated acne scar rating scale (ASRS).

METHODS: A Phase III, multicenter, randomized, double-blind, controlled study was conducted in subjects with ≥ 4 acne scars in the facial area. Eligible scars were distensible, rolling scars that were considered moderate to severe (3 or 4) on a validated 4-point (1–4) ASRS.

Subjects were randomized in a 2:1 ratio to PMMA-collagen or saline (control). Subjects received up to 2 injections per scar and followed for 12 months. Evaluations were performed by treating and blinded investigators and subject self-assessments. Success was determined by an improvement of 2 points on the ASRS by at least 50% of treated scars. At month 6, the blind was removed and control subjects were given the option to receive treatment with PMMA-collagen. All subjects were followed for 12 months following last PMMA-collagen injection.

RESULTS: 147 subjects enrolled and underwent treatment. At 6 months 64.4% of PMMA-treated subjects were graded as responders compared to 32.6% of the control subjects (p = 0.0005). Improvement with PMMA-collagen was durable over time as noted by the ASRS response rates of 61.5% and 70.7% at Month 9 and 12 respectively. High scores were observed for subjective endpoints on GAIS with 97.6% and 83.1% of physicians and subjects respectively noting improvement. Subjects expressed a high degree of satisfaction (90.4%) with the amount of scar correction. PMMA-collagen showed excellent safety with generally mild, reversible adverse events. No significant differences in efficacy or safety were noted between genders, for darker skin types, or in older age groups. PMMA-treated subjects followed for 12 months continued to show an excellent safety profile.

DISCUSSION: PMMA-collagen demonstrates substantial effectiveness in the treatment of atrophic acne scars while maintaining an excellent safety profile.

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