Filling Prominent Nasolabial Fold Applying Platelet Rich Plasma (PRP) Gel

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INTRODUCTION: PRP gels has been used for a few years in facial plastic surgery to decrease hematoma formation, seroma formation, postoperative swelling, and healing time. Despite having a volume itself, PRP gel hasn’t ever used as a filling material in aesthetic plastic surgery practice. The gel has not only volume advantage but also the benefits of PDGF and cytokines. Due to this, we used the PRP gel as a filling material for nasolabial folds.

MATERIALS AND METHODS: 3,W patients were referred to our clinic with prominent nasolabial fold due to aging. Mean age was 46 (42-48). We obtained PRP gel from their own blood without anesthesia by embryologists. Blood was centrifuged, and the platelet and fibrinogen rich plasma component were harvested. It was applied in policlinic doing injection with 18 G canule about 2 cc. Patients were visited at 1th week, 1th, 3th and 6th months. Photos and videos were taken. For one patient MR imaging was performed.

RESULT: In one patient PRP gel was seen at MR imaging at nasolabial fold area at 1th month. In physical examination, gel was perceivable. Nasolabial fold depth was reduced at static and dynamic visualization and their face were looked younger.

CONCLUSION: Prominent nasolabial folds due to ageing are a major aesthetic concern among women. There are many treatments like injection of artificial fillers, fat grafting operations, facelift procedures. And the most popular is fat graft. We shared our patients whom we used PRP gel for filling the nasolabial fold. PRP gels has been used for a few years in facial plastic surgery to decrease hematoma formation, seroma formation, postoperative swelling, and healing time. Their use as a biological dressing after laser resurfacing has demonstrated faster healing and decreased erythema. The application of platelet gels to fat grafts enhances the longevity when injected for contour augmentation. When platelet gel is used in conjunction with sutures it provides for greater tensile strength. PRP gel hasn’t ever used as a filling material in aesthetic plastic surgery practice. In this study we used PRP gel as a tissue filler. It an easy harvesting, cost effective method and the main advantage is restoring the problem with autologous tissue even easier than fat graft.

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was sutured primarily. 3 weeks after the surgery, split thickness skin graft was performed on the adipofascial flap as the second stage of the procedure.

RESULTS: The 8 patients ranged in age from 30 to 62 years old; seven males and one female with injuries at fingertips. Mean follow-up period was about 8 months. All the adipofascial island flaps survived completely and provided excellent soft tissue coverage, and all the skin grafts were taken well. There were no complications, such as infection or re-exposure of bone. And the donor site showed no significant morbidities, such as hematoma and dehiscence. During the follow-up period, there was no atrophy and the appropriate soft tissue padding was provided. All patients were satisfied with round fingertip contour.

CONCLUSION: The adipofascial island flap provides an excellent option because of the simplicity of procedure. Other advantages are constant anatomic pedicle of the flap, minimal donor site morbidity and one operative field. This flap can be performed within one digit, which benefits covering the defect with bone exposure immediately without any preparation of other donor site. We consider that the adipofascial island flap is another reliable and useful method for the fingertip reconstruction.

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Free-Muscle-Flap Coverage of Exposed Knee Joints Following Fulminant Meningococcemia: Twenty Year Follow up of Limb Salvage

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INTRODUCTION: Neisseria Meningitidis is a gram negative diplococcus that leads to a range of manifestations from occult bacteremia to fulminant sepsis. When sepsis does occur, the bacteria releases endotoxin and activates the inflammatory cascade. This leads to rapid tissue loss requiring extensive surgical resection and large wounds that require coverage or amputation of extremities. Limb salvage is important in pediatric patients who present with fulminant meningococcemia requiring surgical intervention to improve quality of life and functionality. In 1995, we published a novel procedure utilizing free muscle flaps to cover widely exposed knee joints resulting from fulminant meningococcemia to prevent above knee amputations. This study aimed to show long term results twenty years after the original surgeries were performed.

MATERIALS AND METHODS: After IRB approval was obtained, the patient was evaluated in a one time clinic visit. During this visit, a thorough history and physical was obtained. Range of motion of knee joints was measured utilizing a goniometer. Strength was measured using the Medical Research Council scale for muscle strength. Sensation was determined by perception of light and deep touch.

RESULTS: Upon evaluation of the patient, she was found to have complete flap viability of the free latissimus muscle flap used to cover the exposed right knee. Capillary refill was less than two seconds. The patient had 5/5 strength of the right lower extremity and was able to sustain her body weight on this leg alone when asked. Goniometry revealed the patient had both active and passive flexion to 130 degrees and active and passive extension to 20 degrees. She also had perception to light and deep touch over the flap. The patient ultimately underwent amputation through the left knee joint after Ilizarov lengthening failed. However, the free rectus muscle flap used to cover the exposed knee joint was used to cover the amputation site and allow for the use of a prosthesis.

CONCLUSIONS: Our twenty year follow up study demonstrates that using free muscle flap coverage of exposed knee joints can allow for limb salvage in fulminant meningococcemia allowing for long term improved quality of life in pediatric patients with this disease process.

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