

Solution for Sinus membrane tear, using PRP and Ti-oss[®] bone graft in one stage approach.

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Sinus membrane tear can occur frequently, during lifting procedure on maxillary posterior area. There are several treatment options, such as 1. suturing, 2. using resorbable collagen membrane, 3. delayed approach depending on the tear size.

Suturing requires high level of delicate tissue maneuvering and may causes more tear. Resorbable collagen membrane can be a treatment of choice but it is costly. Delayed approach is chosen as the last resort when first two options can not be applied and need several months of healing time to reenter.

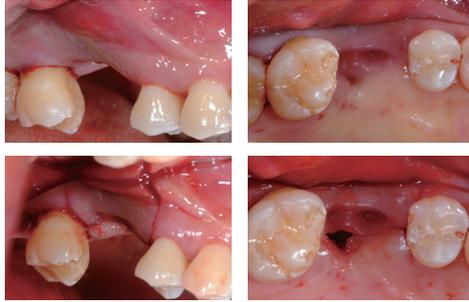
PRP(platelet rich plasma) technique has been used in implant practice since 1997 with success. PRP contains growth factor for tissue healing and once the coagulation is formed, strong fibrin network can seal off the tear with ease. This treatment modality has been applied to sinus membrane tear in one stage approach with implant placement and bone graft for more than 10 years. This approach has been successful and reliable.

The preparation of bone graft is to mix autogenous coagulum, Ti-oss bone graft, PRP and coagulating factors. Coagulated mass also prevents the bone graft from being dispersed over the tear portion.

1 Severe Bone Resorption, Chronic Sinusitis on 16 Tooth



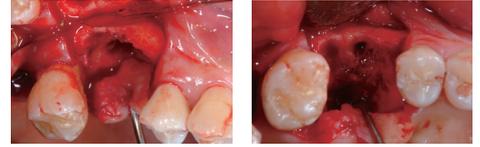
Preoperative CT



Buccal view

Occlusal view

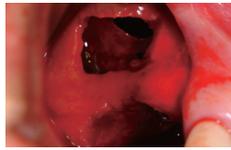
2 After Flap Elevation



3



Lateral Sinus

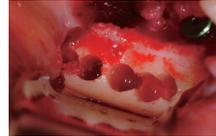


Sinus Membrane Rupture, Perforation No collagen treatment

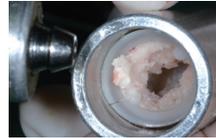


Sawing by Piezo

4 Bone Harvesting from Mandible by Drilling



Trap Collection



5



Storing Autobone by Scraping & Thin Block Bone in PPP (Platelet Poor Plasma) instead of Saline sol.



Mineral Bone & Auto Bone

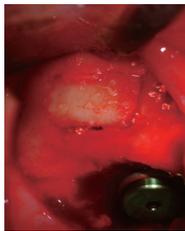


In PRP and Coagulated

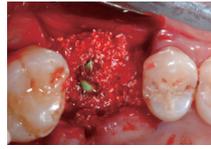
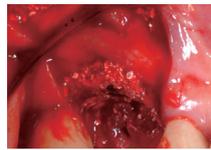
6



Bone Graft with PRP, Autobone & Mineral Bone



Reposition of Sinus Window



7



Suture

8 After Surgery

2Months



4Months



5Months



9 5 Months after Surgery



Well-Formation of Bone

10 10 Months after Surgery CT: Progressive Loading



11 Months Later



1Y & 2Ms Later



11 Successfully Stabilized, 1 Y & 3M after Surgery

