

# Septodont Case Studies Collection

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**Post-extraction bone filling  
before implant placement**

Dr. Bruno Salsou



**Sinus filling for  
implant placement**

Dr. Bruno Salsou



**Post-extraction implants  
with alveolar preservation**

Dr. Carlos Parra Rogel



# Editorial

The Septodont Case Studies Collection is a series of case reports created to showcase the effective utilisation of our products in various scenarios, ranging from simply challenging to the most complex clinical situations.

Over the years, authors from more than 15 countries have generously contributed to the success of our magazine, which is now distributed on five continents.

Each new issue of the Case Studies Collection is an opportunity to discover new clinical challenges and their treatment solutions. The 26th issue focuses on successful bone regeneration following teeth extraction with 3 cases presenting R.T.R.+ and R.T.R.+ Membrane.

- Dr. Bruno Salsou demonstrates the use of R.T.R.+ to enhance bone regeneration before implant placement. Throughout two case studies, one on **post-extraction bone filling** and one on **sinus filling for implant placement**, Dr. Salsou highlights how the material's formulation makes it easier to place and enhances bone healing. This approach is effective for both standard post-extraction cases and more extensive sinus lift procedures.
- In his case study **post-extraction implants with alveolar preservation**, Dr. Carlos Parra Rogel emphasises that using a membrane is crucial to ensure correct healing in bone regeneration processes and prevent the invasion of soft tissue. Thanks to its 100%-synthetic formulation, R.T.R.+ Membrane not only fulfilled membrane expectations but also addresses the drawbacks of non-synthetic membranes.

The cases are written by the practitioners, the products' application in every case is under the responsibility of the author. Septodont reminds that every product has an official indication, available in the product's information notice.

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# Post-extraction bone filling before implant placement

Dr. Bruno Salsou

## | Case report

### **Clinical signs**

A 55-year-old patient presented with significant mobility in tooth 36.

A retro-alveolar radiographic examination showed a level 3 furcation defect preventing the preservation of the tooth.

### **Diagnosis**

The decision was made to extract the tooth and perform bone filling so as to permit implant placement.



*Fig. 01: Pre-operative examination. Furcation defect in tooth 36.*

# Operating procedure



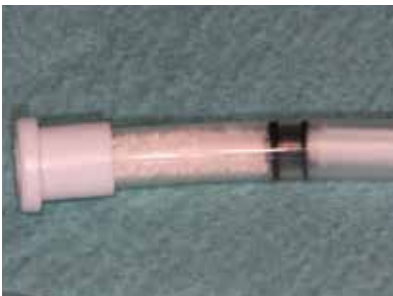
**Fig. 02:** Clinical presentation.



**Fig. 03:** Fractured tooth extracted.



**Fig. 04:** Post-extraction alveolus.



**Fig. 05:** Syringe with R.T.R.+ / MBCP® Technology filling material, 0.5-1 mm diameter granules.



**Fig. 06:** R.T.R.+ / MBCP® Technology filling material saturated with blood.



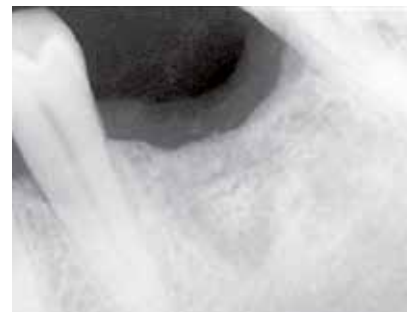
**Fig. 07:** Alveolus 36 filled with R.T.R.+ / MBCP® Technology.



**Fig. 08:** Protection of the graft with PRF membranes.



**Fig. 09:** Repositioning of flap and suture with 3-0 silk.



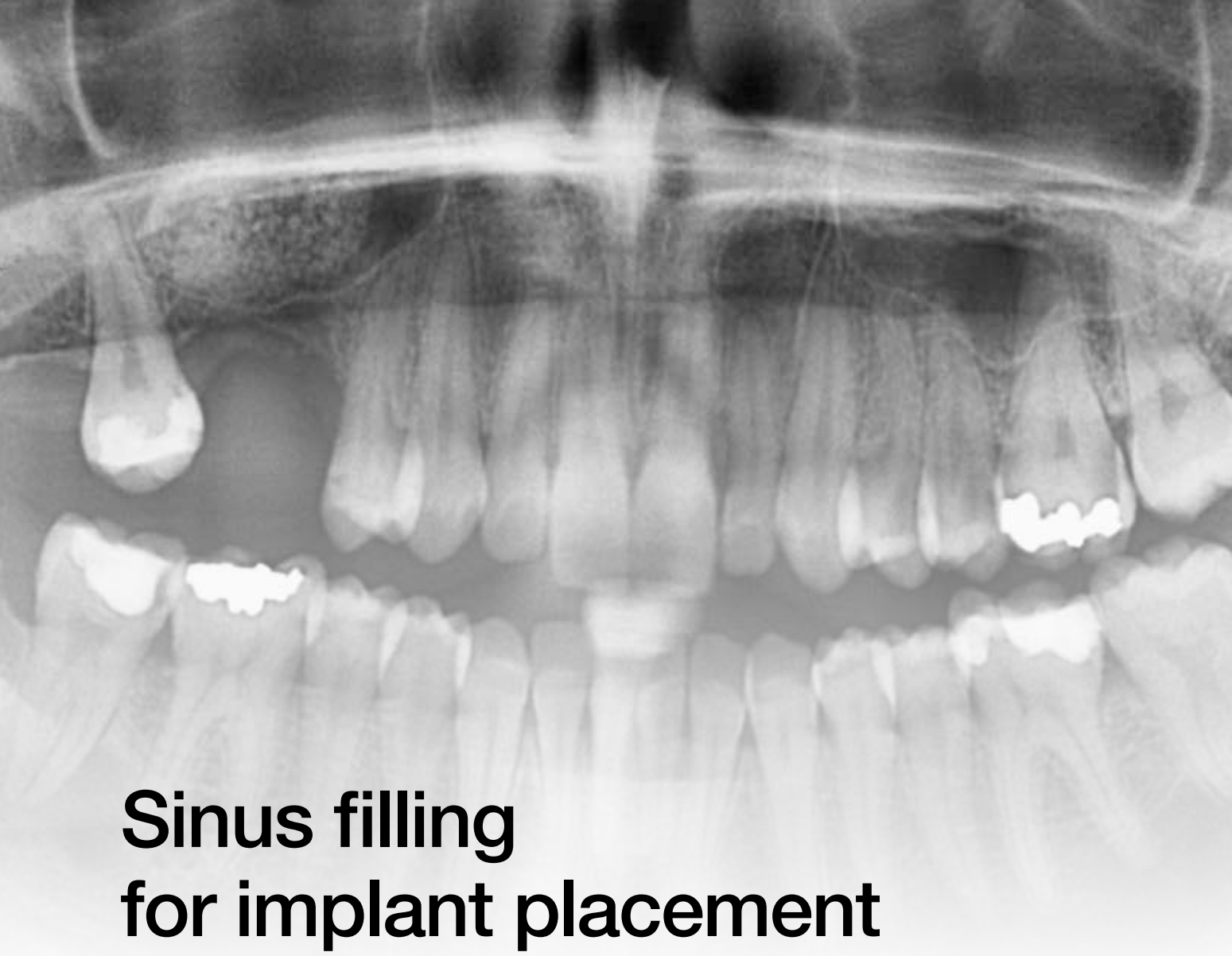
**Fig. 10: 6 month follow-up** - Radiography shows significant bone gain. Implant placement can now be considered under optimal conditions.

# Conclusion

The packaging of R.T.R.+ / MBCP® Technology in pre-filled syringes facilitates the handling and placement of the material.

The conglomerate formed with clotted blood helps to ensure the retention of the material within the alveolus, an essential element for good bone healing.





# Sinus filling for implant placement

Dr. Bruno Salsou

## | Case report

### **Clinical signs**

As a result of caries problems, a 25-year-old patient lost teeth 15 and 16.

A retroalveolar radiographic examination showed large sinus volume, which in such condition would prevent the placement of implants to replace the missing teeth.

### **Diagnosis**

The decision was therefore made to perform a sinus lift.



*Fig. 01: Pre-operative examination* - Radiographic examination showing large sinus volume.

# Operating procedure



**Fig. 02:** Opening of bone flap with piezosurgery.



**Fig. 03:** Placement of 1-2 mm diameter granules of R.T.R. /MBCP® Technology filling material using the delivery syringe.



**Fig. 04:** Sinus filling completed.



**Fig. 05:** Repositioning the flap to close off the site tightly. Suturing the area. End of operation.



**Fig. 06: Immediate post-operative check** - Panoramic radiographic examination showing the bone gain obtained following the sinus-lift in sector 1.



**Fig. 07: 6 month follow-up** - Placement implants, 4.1mm in diameter and 10mm in length.

## Conclusion

The highly granular consistency of the material permits easier placement and prevents the dispersion of the R.T.R.+ / MBCP® Technology granules.

The stability of the material also optimizes bone healing.

# Post-extraction implants with alveolar preservation



Dr. Carlos Parra Rogel

## | Introduction

This case concerns post-extraction implants with alveolar preservation in the posterior upper left area, where a patient presented with root remains of teeth 15 and 16. The decision was taken to extract the root remains and place

implants in the same session, performing alveolar preservation with the patient's own autologous bone to prevent further cortical bone loss and improve the prosthodontic prognosis.



# Case report

## Clinical signs

The patient presented with coronal fractures of teeth 15 and 16. Upon intraoral examination, gingival inflammation and associated retraction were identified in tooth 15, and inflammation and a small abscess were identified in tooth 16. Upon radiographic examination, no signs of infection were observed, but bone resorption was present at the coronal level of both teeth.

## Diagnosis

The decision was taken to extract both teeth and immediately place implants in the same surgical procedure, together with bone regeneration with autologous bone from the donor area, covered with R.T.R.+ Membrane from Septodont.

## Procedure and treatment

An initial x-ray was taken (*Fig. 1*) and teeth were extracted after root sectioning with a high-speed handpiece in order to avoid fracturing the bone walls (*Fig. 2-3*).

After flap raising, an implant was placed in the socket of each extracted tooth. The drilling and placement were done at low speed and low torque respectively in order to be as conservative as possible (*Fig. 4-8*).

To preserve the extraction sockets, autologous bone grafts from the patient's own donor site were used (*Fig. 9*).

The entire area was then covered with a Septodont R.T.R.+ Membrane (*Fig. 10*). The membrane was fixed to the periosteum with an internal absorbable suture.

The procedure was finished by suturing back the flap with monofilament suture after assuring there was no tension (*Fig. 11-12*).

## Follow up

An x-ray was taken directly after the implant placement (*Fig. 13*). Crowns were later placed on the implants by the patient's own dentist.



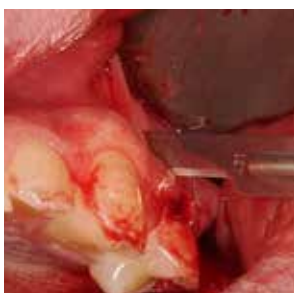
*Fig. 01:* Initial x-ray.



*Fig. 02:* Loosening of root remains at tooth 15.



*Fig. 03:* Extract of root remains at tooth 16 with forceps.



*Fig. 04:* Releasing incision for flap raising.



*Fig. 05:* Surgical area after flap raising.



*Fig. 06:* Implant placement in the interradicular septum of tooth 16.



*Fig. 07:* Implant placement in the socket of tooth 15.



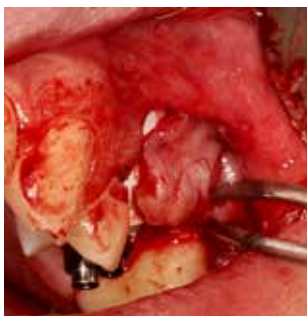
**Fig. 08:** Both implants in place.



**Fig. 09:** Autologous bone graft covering the whole bone defect.



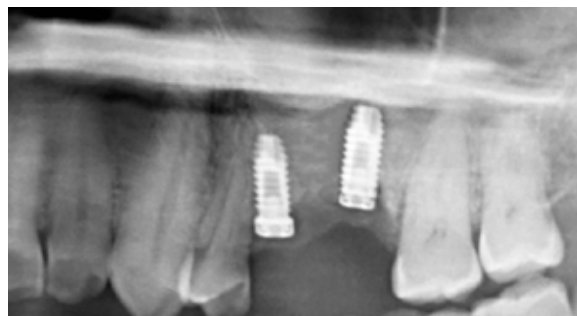
**Fig. 10:** R.T.R.+ Membrane placement before removal of implant mounts.



**Fig. 11:** Checking the flap is free from tension.



**Fig. 12:** Flap suture after implant mounts release.



**Fig. 13:** Initial x-ray.

## Discussion

The adjuvant use of barrier methods such as medium- and long-term resorbable membranes ensures correct healing in bone regeneration processes and prevents the invasion of soft tissue, allowing the cells to migrate into the area to form new bone. Resorbable membranes, such as R.T.R.+ Membrane, address the drawbacks on non-resorbable membranes, which are more prone to exposure and may require a second surgery for removal.

Resorbable membranes can be made of collagen or natural polymers. While these

membranes are highly biocompatible and do not require removal, they have a lower mechanical strength. Further, their barrier function can be questionable due to the difficulty controlling their biodegradation.

The newly introduced R.T.R.+ Membrane is a 100%-synthetic, resorbable membrane made of PLGA, with a bilayer structure that provides better mechanical properties, a strong barrier effect, and a resorption time between 4-6 months. It is unaffected by exposure.

## Conclusion

It is essential to choose appropriate barrier methods, both in terms of resorption time and material composition, so that the regenerative processes are predictable and optimal results

are obtained for the patient. In this case, the R.T.R.+ Membrane from Septodont appears to be an indispensable ally for this type of surgical approach.



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**NEW**

# *R.T.R.+ Membrane*

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Easily - Safely - Successfully



Our unique  
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