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# Management of extraction-related abscesses with collagen filler

When teeth are extracted, horizontal and vertical bone loss is known to occur within six months.<sup>(1)</sup> One of the major indications for extraction is drastic root fracture due to trauma or iatrogenic causes (for example, it is now known that placing a dental post in a root is a risk factor).<sup>(2,3)</sup>

Following a fracture, a major bacterial passageway is created, usually leading to lesions that result in significant bone loss if the tooth is not removed early enough. Apart from cases where the broken

fragment can move and is painful for the patient, these lesions usually develop without symptoms.

When fractured teeth are extracted, there are often gaps in the bone wall, which may lead to further bone loss once healed. We are looking to achieve optimal healing to ensure that the implant can be placed in position under the best possible conditions. Therefore, it is important to maintain the space required for the bone to heal in order to obtain an adequate amount of volume, as there

is a risk that soft tissue will invade the healing cavity and create a “basin” or dip, forcing us to use guided bone regeneration (GBR) techniques.

The use of a protective material with a slow absorption time of approximately 12 to 16 weeks (SeptoCone, Septodont) would appear to promote bone healing in lesions where one or two walls have been lost. By comparison, a standard collagen sponge will undergo rapid

resorption over a period of approximately three to five weeks and does not appear to maintain bone volume following extraction.<sup>(4)</sup> Additionally, SeptoCone’s textural quality means that it can be handled more effectively without the risk of tearing or a poor fit, as occurs with most conventional collagen sponges.

In the clinical cases that follow, we can see the results of the healing process.

### Clinical Case 1

A 65-year-old male patient presented for a check-up. Retroalveolar X-rays revealed a fracture in the mesial root of tooth 36 with no specific clinical signs (*Fig. 1*). The decision, taken together with the patient, was to perform the extraction as quickly as possible to avoid an abscess and preserve as much bone as possible, in order to be able to proceed with a future dental implant (*Fig. 2*).

At the time of the operation, residual loss of the vestibular bone wall was observed over three quarters of the mesial root of tooth 36. The

decision of placing a SeptoCone and stitches to guide healing was made at this time. SeptoCone is usually used in post-extraction alveoli with intact walls, but I like to take it further and extend its use in more challenging cases.

A six-month follow-up X-ray suggested that the bone volume had been fully regenerated (*Fig. 3*), as confirmed by a cone-beam CT scan (CBCT). The Nobel Biocare Parallel CC implant was placed in a good-quality natural bone mass (*Fig. 4*) and a screw-retained FCZ crown was fitted (*Fig. 5,6*).

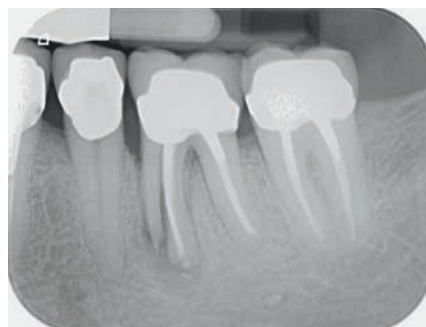


Fig. 01

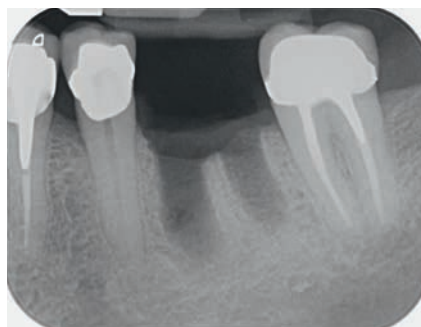


Fig. 02

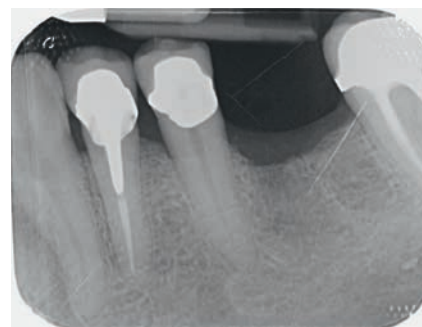


Fig. 03

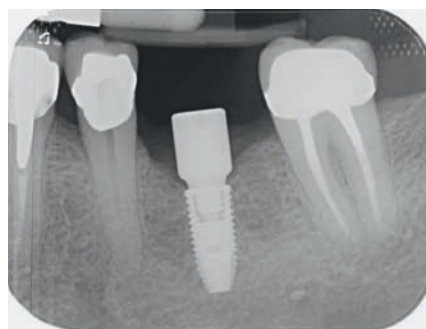


Fig. 04

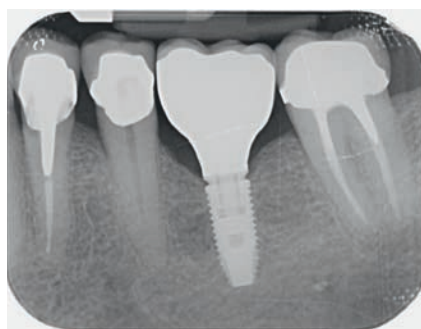


Fig. 05



Fig. 06

## Clinical Case 2

A 56-year-old male patient presented with severe pain in quadrant 4 and a vestibular fistula. A clinical examination revealed swelling and severe pain in tooth 46, aggravated by pressure and deep puncturing of the distal root. A retroalveolar X-ray revealed apical or periapical periodontitis on the medial and distal roots (*Fig. 7*).

Following extraction, bone loss could be seen in the vestibular wall opposite the distal root, along

with a significant mesial bone defect (*Fig. 8*). SeptoCone was used and taken to greater extent with this challenging case.

The six-month follow-up X-ray revealed satisfactory results, and a Nobel Biocare Parallel CC implant was fitted (*Fig. 9*). Fifteen months later, a follow-up X-ray revealed satisfactory results (*Fig. 10*).

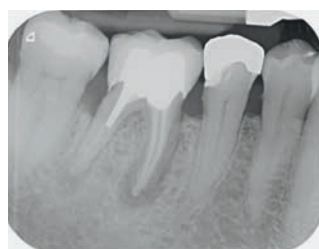


Fig. 07

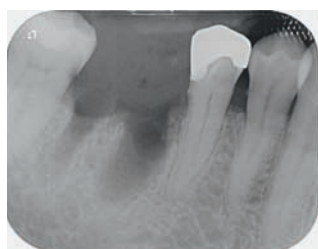


Fig. 08

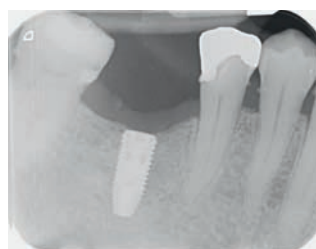


Fig. 09



Fig. 10

## Clinical Case 3

A 60-year-old female patient presented with severe pain in quadrant 3 when chewing (*Fig. 11*) and a fracture of the root of tooth 35, which was confirmed by deep clinical vestibular probing and a retroalveolar X-ray (*Fig. 12*).

When the extraction was performed, it was possible to observe a bone fenestration in the vestibular bone wall (*Fig. 13*). A SeptoCone perfectly adapted to the shape of the root was fitted (*Fig. 14,15*) and was protected by stitches (*Fig. 16*) to allow healing (*Fig. 17*). Eight months later, the implant was placed (*Fig.18*).



Fig. 11

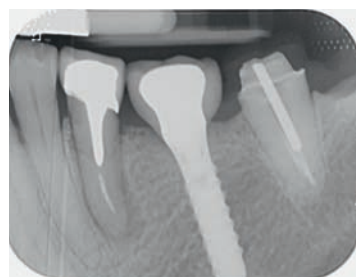


Fig. 12



Fig. 13

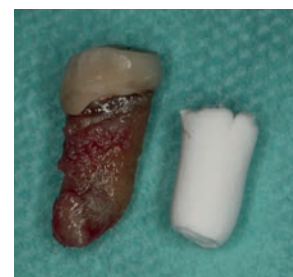


Fig. 14



Fig. 15



Fig. 16

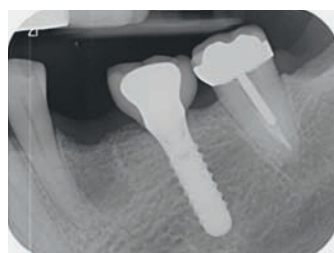


Fig. 17

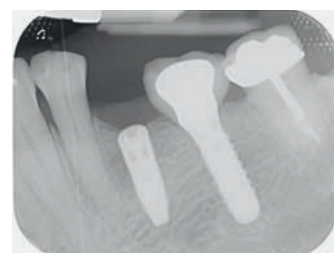


Fig. 18

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