Internal resorption treatment using MTA-based endodontic sealer

Clinical Case Report

By Dr. Fábio Duarte da Costa Aznar, Brazil

Male patient, 32 years old, presented with clinical classification of pulp necrosis of dental elements 11 and 12 (Fig. 1), associated with the presence of internal resorption, being subjected to endodontic treatment on both elements. He reported a history of dental trauma in childhood, and had previously undergone an urgent intervention in element 21 by another professional, due to edema and pain in the apical region. Due to the presence of fistula in this region, it was traced and found to originate from dental element 21 (Figs. 2 and 3).

After the initial approach of the patient, he was anesthetized and absolute isolation was prepared. Afterward, the coronary access was made, during which the pulp necrosis of both teeth was clinically identified. A crown-down disinfectant penetration was done, using NaOCl at 5% as an irrigating agent, with odontometry performed by the X-ray method (Fig. 4) due to the insufficiency of using a furcalanator in these anatomical conditions, which could influence its precision. The preparation was done by the step-back preparation technique, using K files (Maillefer/Switzerland) and NaOCl 5% as an irrigating agent, seeking to dilate the whole root canal formation. With each change of instrument, ultrasonic irrigation was done with smooth inserts (Brasseler/Brasilia) using the PUI and CUI concept (Fig. 5). As a complement to the intra-canal decon- tamination process, two fifteen-day exchanges of calcium hydroxide were done (UltraCal/UltraCal/ USA), also aiming at analysis of the quality of cleaning obtained in the area of resorption by the radiopac- ity of this medication (Fig. 6).

The obturation was done using the Tagger Hybrid thermome- chanical technique (Figs. 7 and 8), through the use of Gutacdenden- sor (Maillefer/Switzerland), cones of TP gutta percha (Dentsply/Bra- zil), and Fillapex MTA-based sealer Angelus/Brasil (Fig. 9). After the thermo-compaction, the cut of the obturation, vertical condensation with the use of CLC, cleaning of the pulp chamber, and immediate pro- visional restoration were done (Fig. 10). The sealing of the ramifications and resorptive areas was observed radiographically, as well as the presence of silent postoperative.

The preservation was done after three months. It demonstrated re- sorption of the Fillapex sealer and new bone formation in the apical region of both teeth (Fig. 11).

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Interview: “Endodontic treatment is an invaluable therapeutic technique”

By CT

From 4 to 7 October, the world of endodontics will be meeting in the South Korean capital of Seoul for the 11th International Federation of En- dodontic Associations (IFEA) World Endodontic Congress (WEC). In light of the event, which has attracted den- tal professionals from all around the world for many years, Dental Tribune Online spoke with IFEA WEC 2018 Chairperson Dr Andy Euiseong Kim.

Dr Kim, how would you de- scribe your experience as chairperson of the IFEA WEC 2018 Seoul local organizing committee?

First of all, it is my great honour and privilege to act as chairperson of the local organizing committee. I’ve learnt so much while preparing for this gathering, I would like to express my sincere appreciation to everyone for the support they’ve shown us so constantly. I feel so blessed, and it could not have been done without that cooperation and support.

Second, I have been pleased to see Ko- rean dentists demonstrating their ex- cellent capability. They perform ex- cellent endodontic treatment, even in poor environments, and all the techniques of endodontic treatment are controlled under the govern- ment-led health insurance system. I can confirm that these researchers are conducting world-class research.

Finally, it has been a valuable experi- ence to feel the unity of the members of the Korean Academy of Endod- ontics.

The theme of this year’s meet- ing is “Endodontics: The ut- most values in dentistry”. Can you explain what is behind this and how you identify with it?

Endodontic treatment is an inva- luable therapeutic technique that can keep natural teeth healthy. The reach of its use depends on the country, and I have felt sorry that endodontic treatment has been more neglected than other fields, given its impor- tance. We have various difficulties, especially with the limited choices for dentists, because of the govern- ment’s medical insurance system.

With this point of view, we came to the idea of going back to the basics and asked ourselves a fundamental question: what is most important for national oral health? A high build- ing may be nice to look at, but it will not last long if the groundwork is not done properly. Likewise, our efforts to keep our natural teeth healthy for the future should never be under- estimated.

Why do you think meetings such as IFEA’s WEC are impor- tant for the endo community?

This is an absolutely necessary meet- ing. The American Association of Endodontists meeting, the European Society of Endodontology meeting and the WEC of IFEA are the standard meetings of international endodon- tic societies, but while the meetings arranged by the first two associations are locally constrained, the IFEA gathering is the only academic congress that covers international endodontic treatment. Memberships of IFEA con- tinue to increase, and 36 countries have enrolled in IFEA as member countries. It is natural that there’s level of dif- ference depending on the country, and I believe everyone will level up through this kind of meeting. By do- ing so, we can contribute to the posi- tive development of human beings, which is IFEA’s primary value. Also, the meeting promotes fellowship among endodontists and exchange of experiences and ideas. We will maximise synergy in our field by sharing information with one an- other.

What are your expectations/ hopes for the meeting, and what are you most looking forward to personally?

I am so excited about the meeting. The largest number of participants of all IFEA WECs will come to Korea from 70 countries all over the world. Personally, I am thrilled to meet endodontists from all over the world. I know that it will be a wonder- ful experience to meet participants from far away and from closer to home. Furthermore, I hope that IFEA will continue to grow into a globalorganisation representing the whole world.