Association of fiberglass post and core for immediate reconstruction of anterior teeth extremely destroyed

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INTRODUCTION

The Restoration of fractured anterior teeth has always been a great challenge in restorative dentistry. This situation becomes even more challenging when the tooth is jeopardized biologically and mechanically 1,2.

The clinical situation often implies restoring fractured teeth which also have pulpal and periodontal impairment, when the fracture breaks the neurovascular bundle and invades the biological space 3-10.

Being aware of the actual clinical status and biomechanical state of the tooth or teeth to be rehabilitated and integrating restorative materials and techniques and is essential for successful rehabilitating treatment 11,12.

Thus, the objective of this study is to report clinically the clinical and therapeutic procedures for rehabilitating central incisors 11 and 21, with extensive fracture and great pulpal and periodontal impairment.

REPORT OF THE CLINICAL CASE

Patient, male sex, 25 years old, sought dental attendance, with teeth 11 and 21 extensively fractured due to the accident (figures 01 and 02).

During the clinical examination anamnesis, the fracture of the middle third of tooth 21 was noted without greater impairment, but in tooth 11 an extensive fracture was found, at the cervical level, with rupture of the neurovascular bundle and invasion of the biological space (figure 03).

At this starting and emergency time it was decided to reposition the tooth 11 and fasten it with compound resin. A provisional restoration as made in the tooth 21 with resin and palatal splinting done for the teeth 11 and 21 (figure 04).

After 15 days, the patient returned for control, the pulpal sensitivity to heat and cold tests were done and fortunately they were positive. However, some concern related to the mechanical resistance of the teeth remained and so the possibility of endodontic treatment for mechanical reasons were always clarified, although always rejected by the patient. It was decided to wait longer for biological and mechanical control to establish the final restorative procedure. However, after a week the patient returned with the splinting and sticking of the tooth dente 11 loose. In other words, the tooth was mechanically weakened (figure 05).

At this moment, we checked the need to execute endodontic treatment of the tooth 11 for mechanical reasons, for later placing of a fiber pin for anchoring of the fractured crown. Due to the fact that its fragment only adhered by the palatal enamel, it did not have sufficient resistance. Nevertheless, the patient was very resistant and rejected this possibility. He asked us to splint the tooth again and wait longer (figure 06).

A control was marked after 15 days, but the patient did not return. And 3 months went by without contact until he returned in the situation found in figure 07.

According to the patient's report, he traveled and during the trip the tooth came loose and he sought an emergency dental service resulting in this situation.

Thus, due to this, there was no other alternative. He was sent for endodontic treatment (figure 08).

After which, a fiberglass pin was placed (EXACTO – ANGELUS®) (figures 09 and 10) inside the duct associated with a prefabricate core also of fiberglass

(REFORCORE® – ANGELUS®) (figure 11), for anchoring the crown. After the cementing of both a preparation was executed (figures 12 and 13).

The crown remains of the tooth 11 were cleaned and the contents of the pulpal chamber removed to adapt to the fiberglass core (figure 14).

This was then cemented with resinous cement (figures 15 and 16).

After 3 weeks for gingival control the patient returned for the end restorative procedure, where 2 direct facets in compound resin were executed in the teeth 11 and 21 (figure 17).

DISCUSSION

Restoring and rehabilitating fractured anterior teeth always requires a very accurate mechanical and biological analysis 13,14.

Teeth with endodontic treatment require the placing of a fiberglass post to increase the resistance to fatigue. This procedure is essential to avoid cervical fracture of them 3,4,5,6,7.

Furthermore, today with the evolution of the core systems and with the introduction of the system Reforcore® – Angelus®, it has increased the horizon for prosthetic anchoring of teeth, with great mechanical reliability. The Exacto and Reforcore® are fiberglass systems which are easy and quick to use, allowing the production of immediate cores for the prosthetic anchoring of anterior and posterior teeth, granting aesthetics and resistance to the dental remains. This fiberglass post and core integration allows queries to be removed regarding the resistance of cores in teeth extremely destroyed, as there were in the compound resin core and fiber post system.

CONCLUSION

The integration of restorative techniques and the use of the systems Exacto and Reforpost® allowed, with extreme biomechanical safety the immediate rehabilitating with compound resin of the teeth 11 and 21, granting advances aesthetics, function and shape.

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Fotos

Figura 1.

Figura 2.

Figura 3.

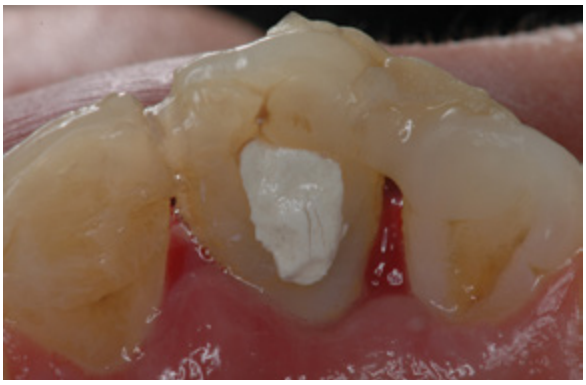
Figura 4.

Figura 5.

Figura 6.

Figura 7.

Figura 8.



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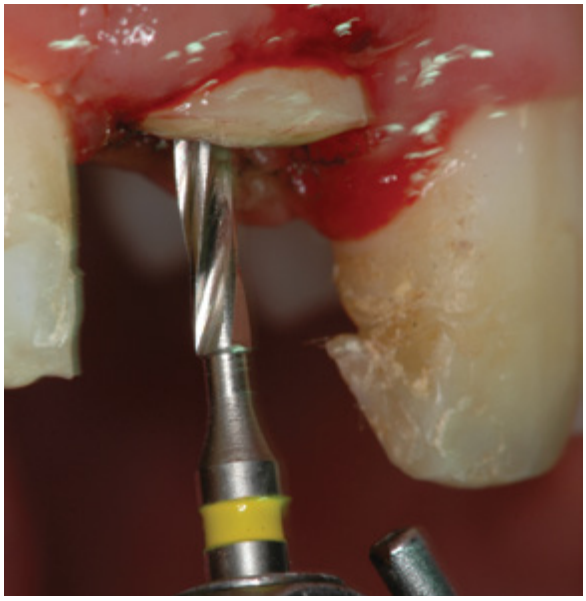

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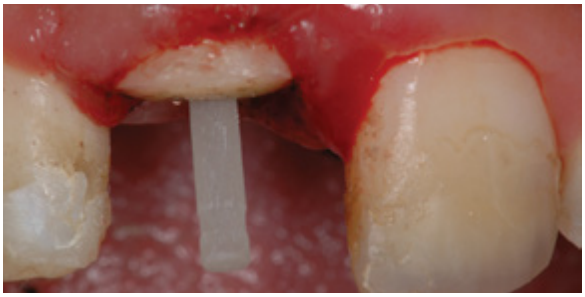

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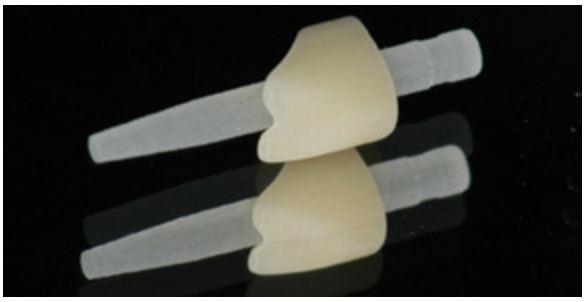

Figura 12.

Figura 13.

Figura 14.

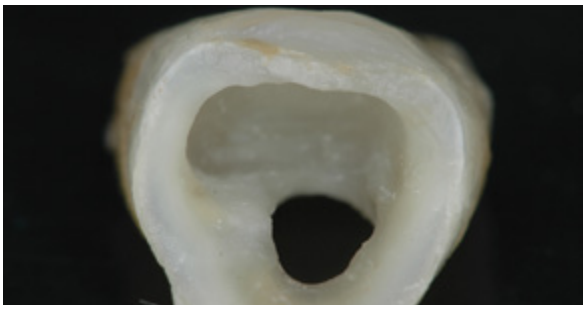

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Figura 16.

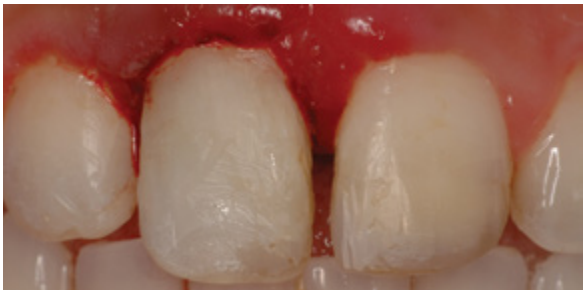

Figura 17.