



CLEAR-ALIGNER®



CLEAR-ALIGNER®

Pablo Echarri

English



CLEAR-ALIGNER®



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English

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C-A PROTOCOL

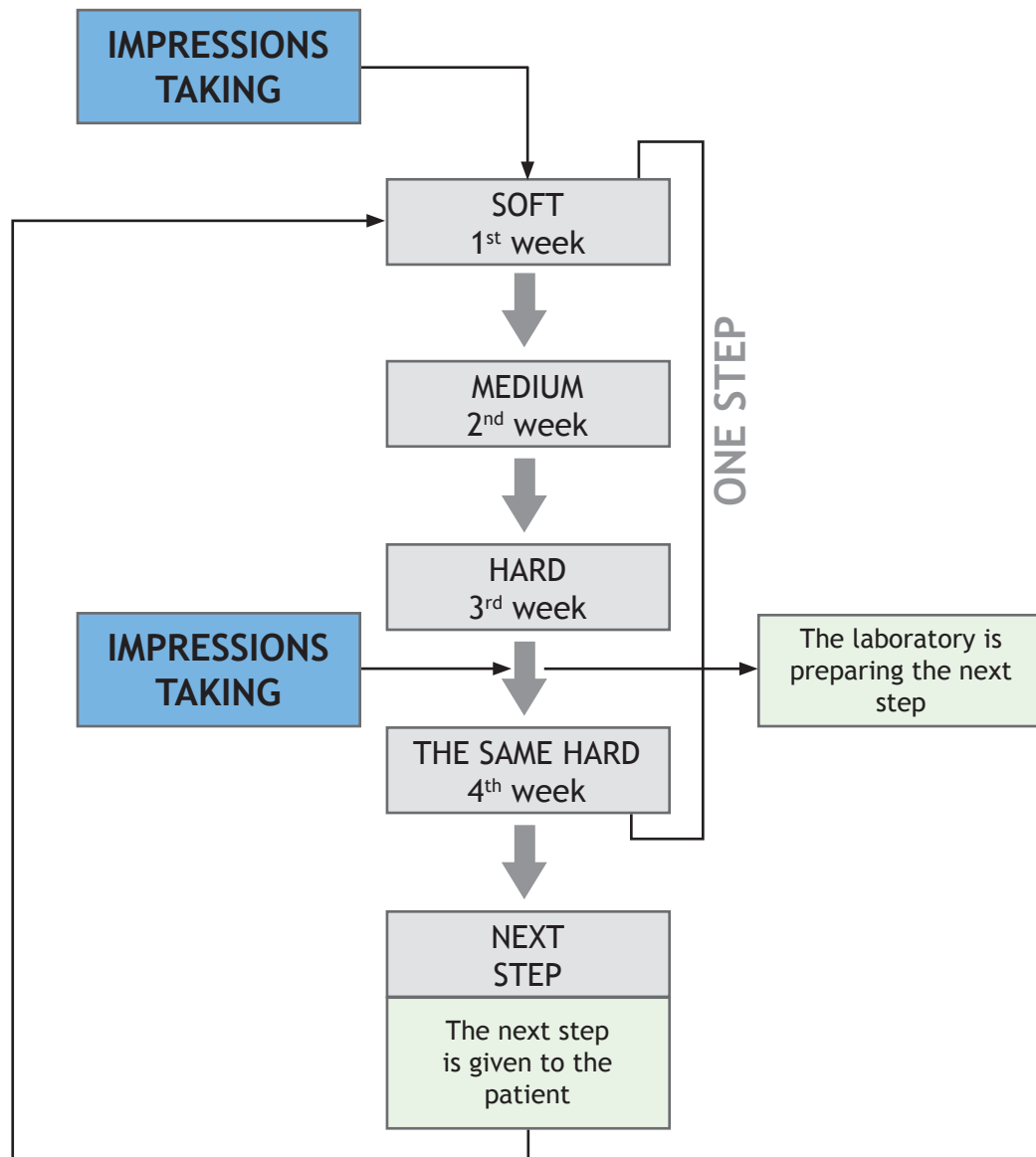


Fig. 3.

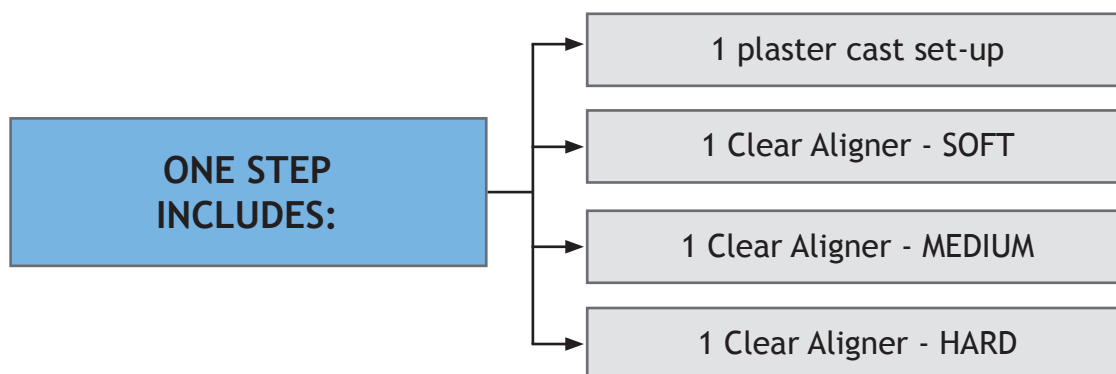


Fig. 4.

**THE FIRST STEP MOVEMENT IS 0.5 mm.
THE DENTAL MOVEMENT OF NEXT STEPS IS 1 mm.**

Fig. 5.

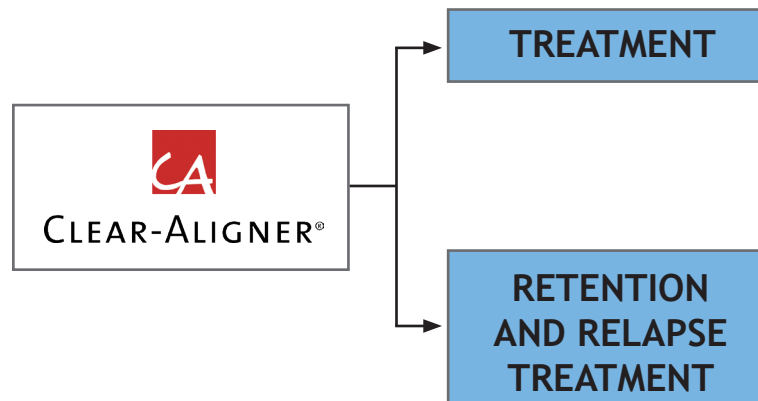


Fig. 6.

Each step of treatment is approximately one month long. When the impressions are taken, and the patient is given the aligners, they should be used:

- Clear Aligner Soft during the first week.
- Clear Aligner Medium during the second week.
- Clear Aligner Hard during the third week. Also, the new impressions are taken so the new step can be prepared.
- During the fourth week, the same Clear Aligner Hard should be used. Meanwhile, the laboratory prepares the next step.
- After the fourth week, the next set of aligners will be given to the patient, and they should be used in the same order.

| CA Clear Aligner | | |
|------------------|-------|----------|
| SOFT | .020" | 0.5 mm |
| MEDIUM | .025" | 0.625 mm |
| HARD | .030" | 0.75 mm |
| RETENTION | .040" | 1 mm |

Fig. 7.

Other Types of Clear Aligner

The laboratory can also carry out other types of Clear Aligners, such as Forced Extrusion, Forced Intrusion, Power Edge, etc. which are described in other chapters.

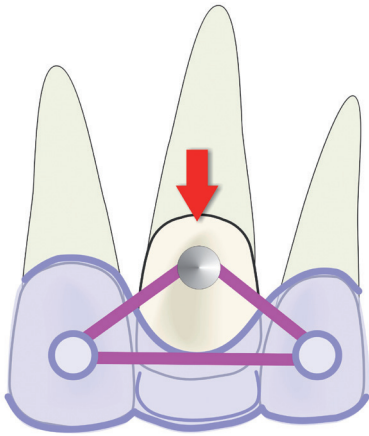


Fig. 27. Forced Extrusion.

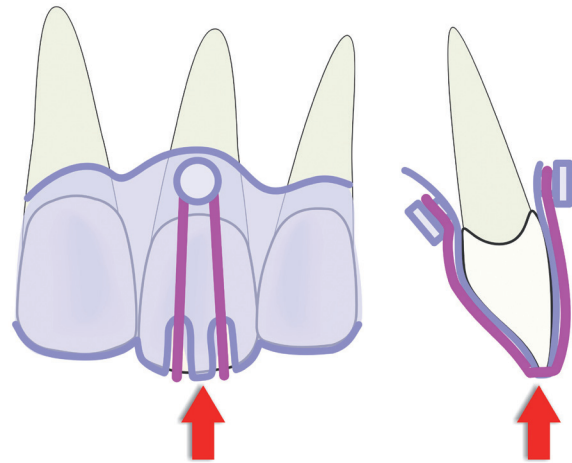


Fig. 28. Forced Intrusion.

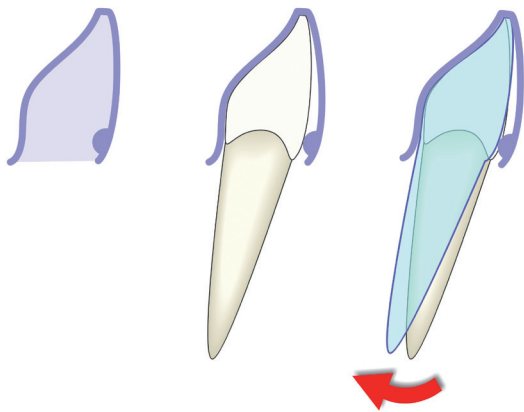


Fig. 29. Labial Power Edge.

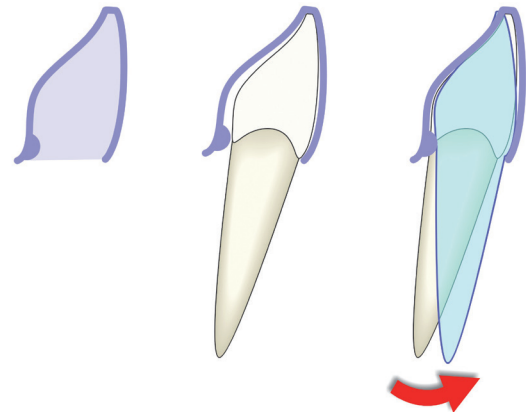


Fig. 30. Lingual Power Edge.

Simple or Double Clear Aligner Retention

When the treatment objectives are achieved, the Clear Aligner Retention will be carried out.



Fig. 31. Retention.

In mandible, it is usually possible to bond a fixed retention (see **Chapter 14**), and in this case, the impression will be taken after the splint bonding. In this case, a double retention will be carried out: fixed and Clear Aligner.

If a fixed retention cannot be bonded, a simple retention Clear Aligner will be carried out.

In all cases, the retention appliances are carried out:

- Using the plaster cast without movements (without set-up).
- If there is also a fixed retention, it should be covered with Blue Blokker.
- Retentive zones are covered with Blue Blokker.
- For their fabrication, a Clear Aligner Retention foil of 1 mm (.040") is used.
- It should cover only 2 mm of gingival tissue.

Gingival trimming of Clear Aligner

Clear Aligner should usually cover 2-3 mm of gingival tissue, but sometimes it is better to trim it at the gingival level. It is more difficult to predict the changes in soft tissue, and therefore it shouldn't be covered with Clear Aligner if more significant changes are expected.

The Clear Aligner should be trimmed at the gingival level in the following cases:

- In the second step, if 1x2 protocol is used.
- In the second and third step, if 1x3 protocol is used.

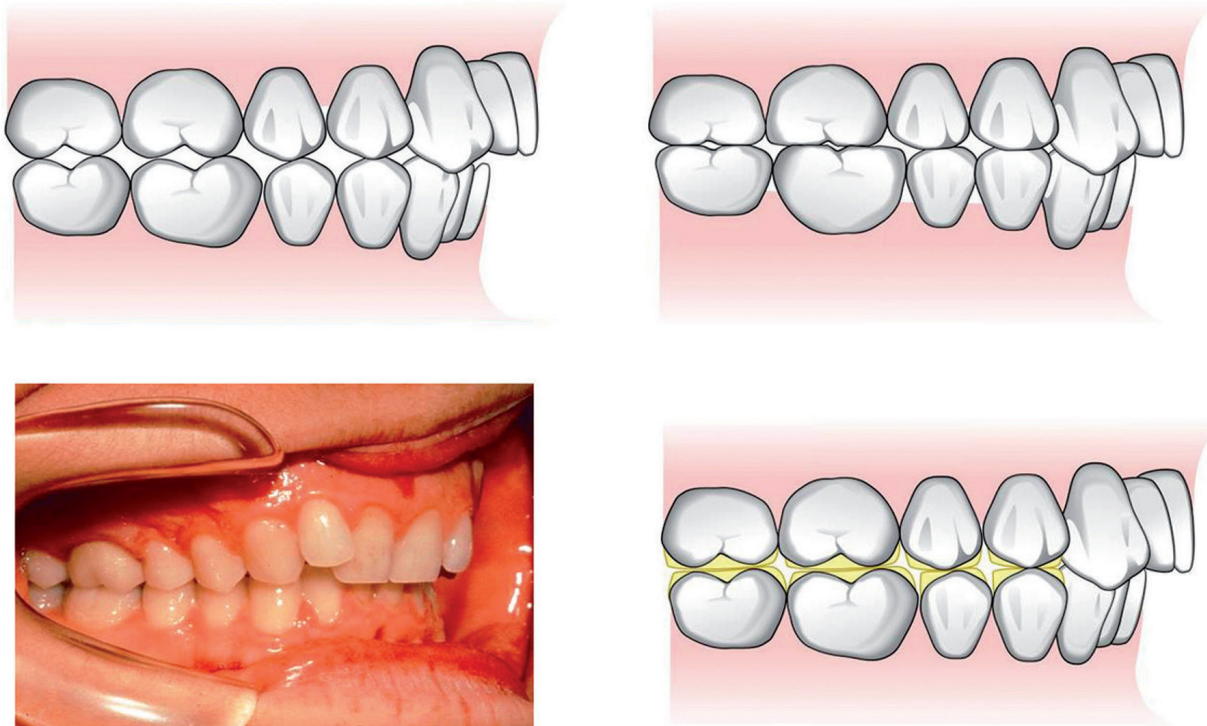


Fig. 9. If a Class II mal occlusion is corrected with a compromise result (not recommendable), the posterior occlusion should be balanced with selective trimming, or with posterior teeth reconstruction.

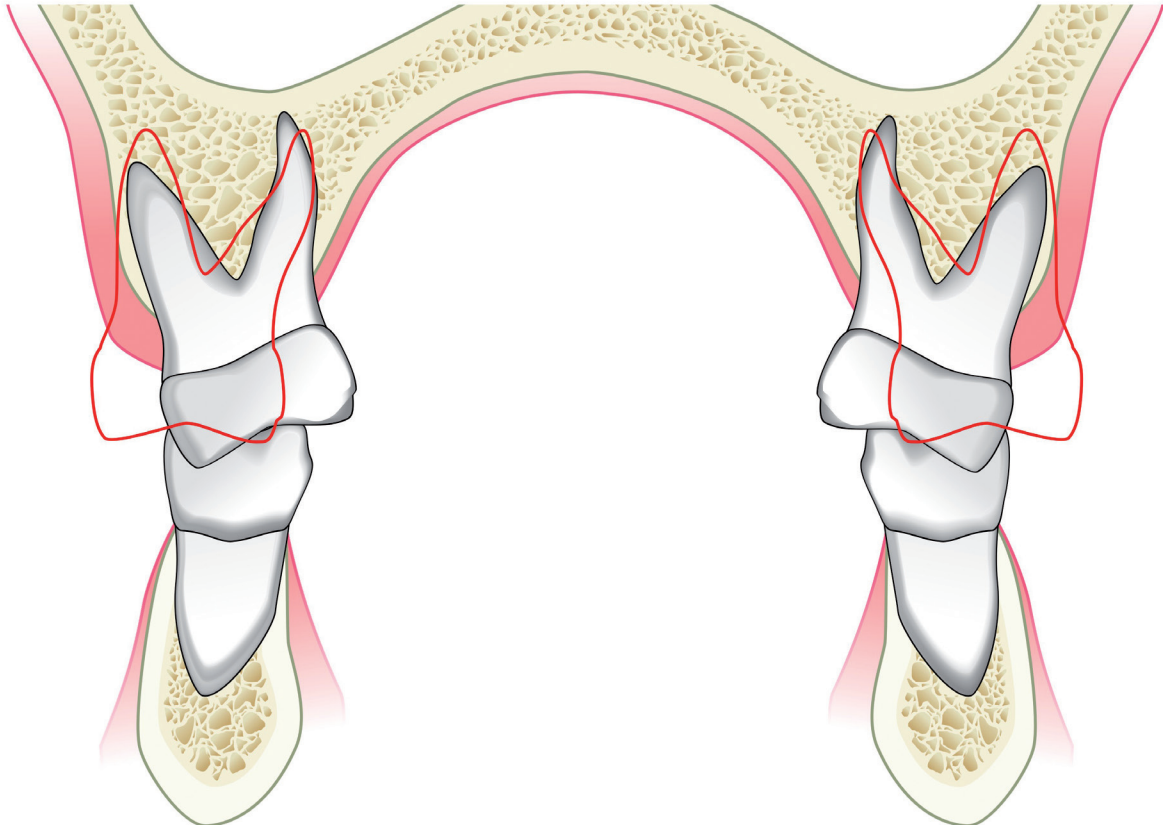


Fig. 10. If a patient presents posterior cross bite with a negative molar torque, an expansion can be carried out before the Clear Aligner treatment. In mild cases, a Clear Aligner Screw (with expansion screw) can be used (see Chapter 8), and in severe cases, a Quad-Helix and a Transpalatal Bar can be used. After that, the correction of anterior teeth mal position can be carried out with Clear Aligner.

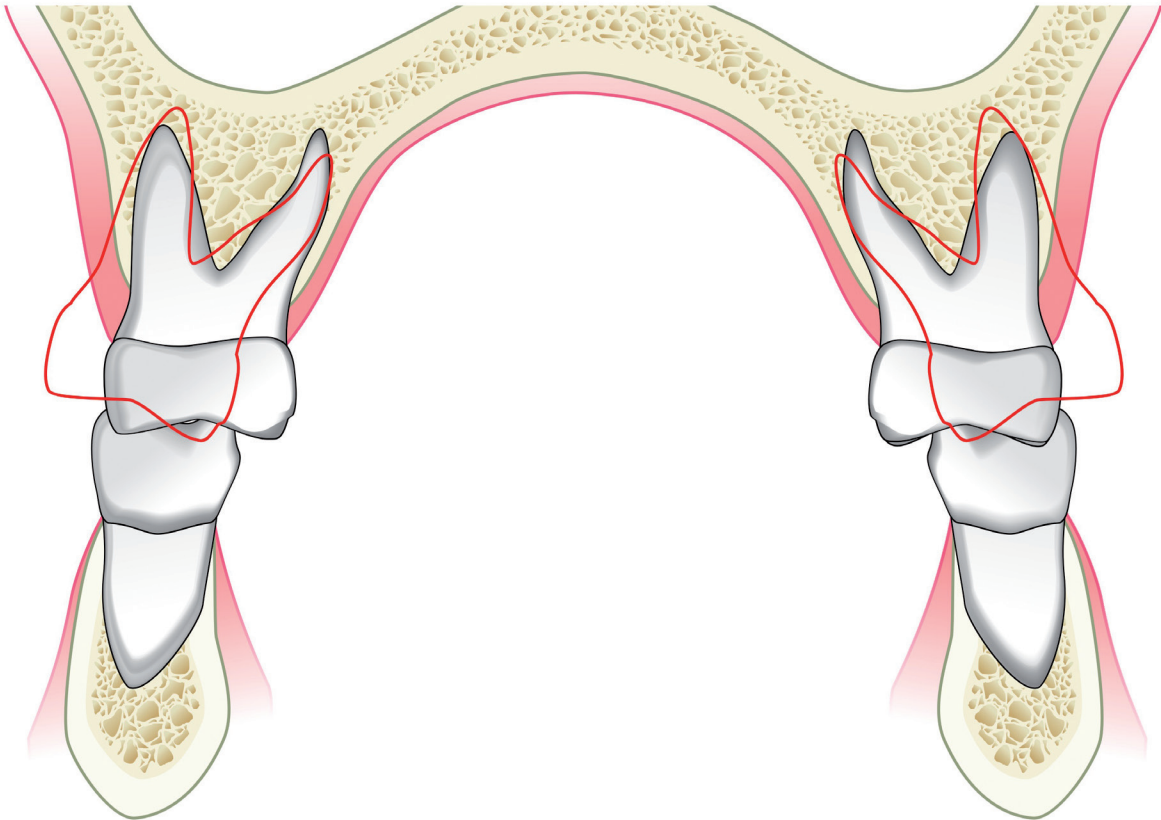


Fig. 11. If a patient presents posterior cross bite with normal or positive molar torque, expansion is not indicated because it would increase too much the molar torque. In this case, first a Rapid Palatal Expansion using the Hyrax screw can be carried out, and after that, the treatment of anterior teeth can be continued with Clear Aligner.

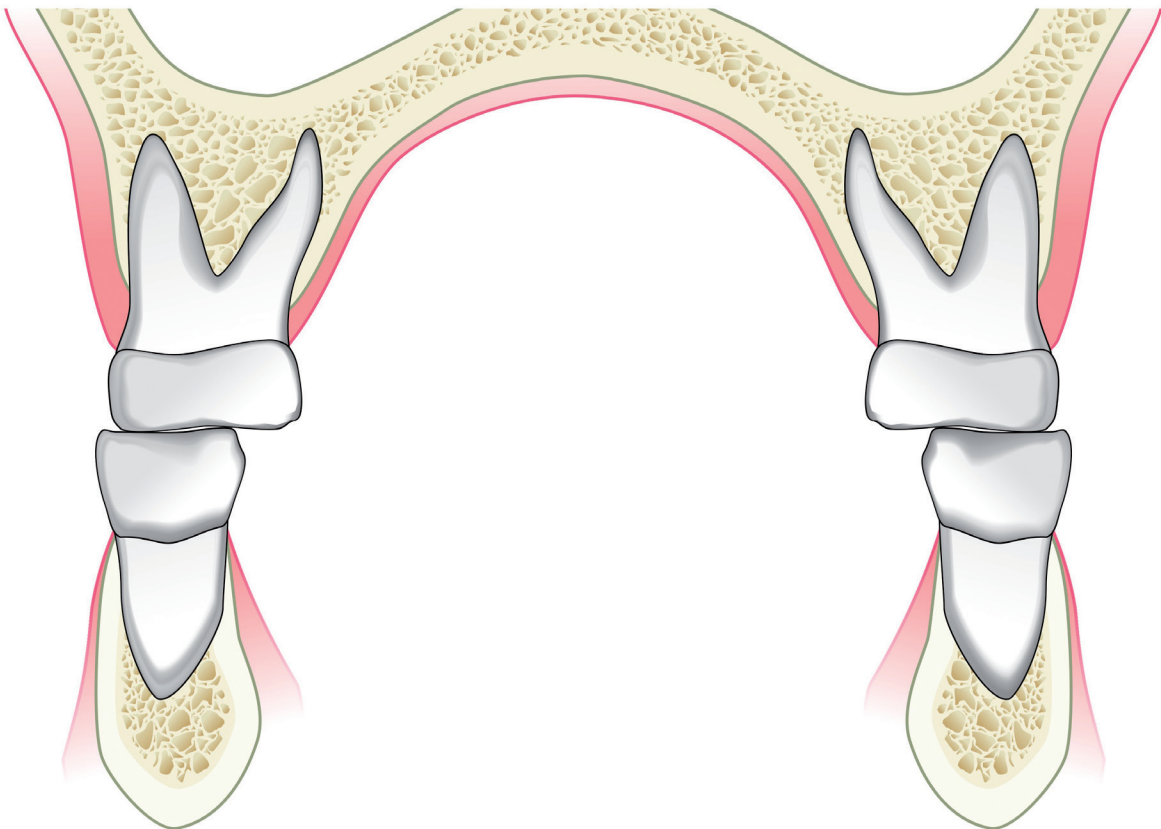


Fig. 12. In compromise treatments (not recommendable) in which the posterior cross bite is not corrected, the occlusion should be balanced with occlusal adjustment by selective trimming.

The case 01222 presents crowding and was treated with oblique-transverse expansion.

Before the treatment



Fig. 67.



Fig. 68.



Fig. 69.



Fig. 70.



Fig. 71.

After the treatment



Fig. 72.



Fig. 73.



Fig. 74.



Fig. 75.



Fig. 76.

The case 01287 presents crowding and was treated with oblique-transverse expansion.

Before the treatment



Fig. 77.



Fig. 78.



Fig. 79.



Fig. 80.

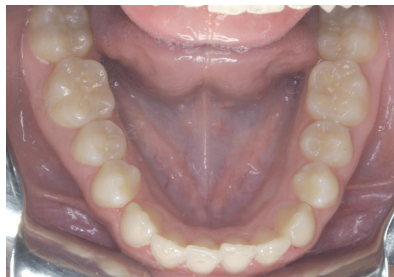


Fig. 81.

With Clear Aligner



Fig. 82.



Fig. 83.



Fig. 84.



Fig. 85.



Fig. 86.

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for 1 week whenever Clear Aligner FE cannot be used, and CA FE is used while sleeping and at home with elastics of 1/8" and 4.5 oz (Fig. 75-79). The Clear Aligner Forced Extrusion is used from the very beginning of the treatment.

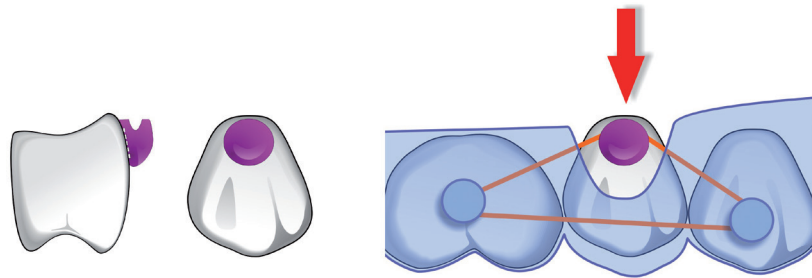


Fig. 75. Scheme of CA Power Grip 1 - MFM for extrusion.

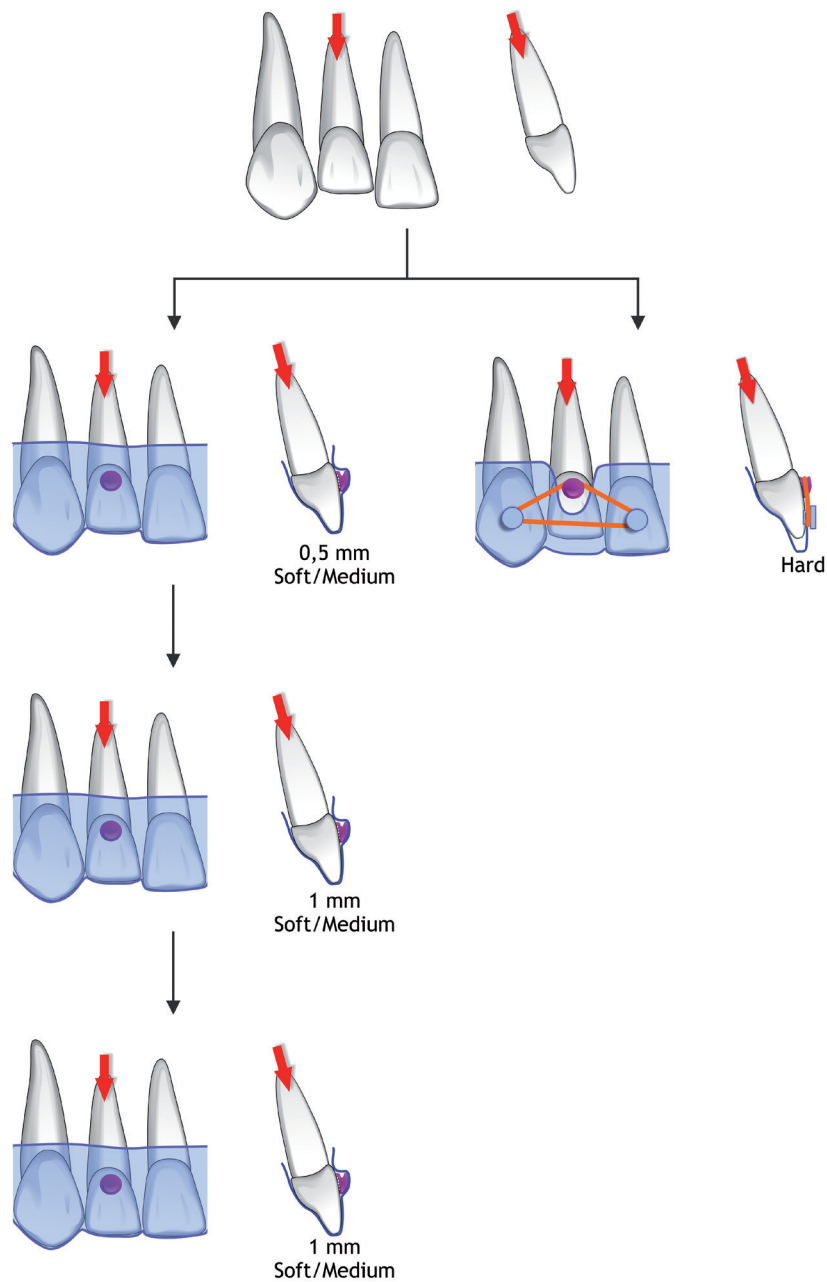


Fig. 76. Scheme of the use of CA Power Grip 1 - MFM for extrusion (see text).



Fig. 77. CA Power Grip 1 - MFM for extrusion on the plaster cast.

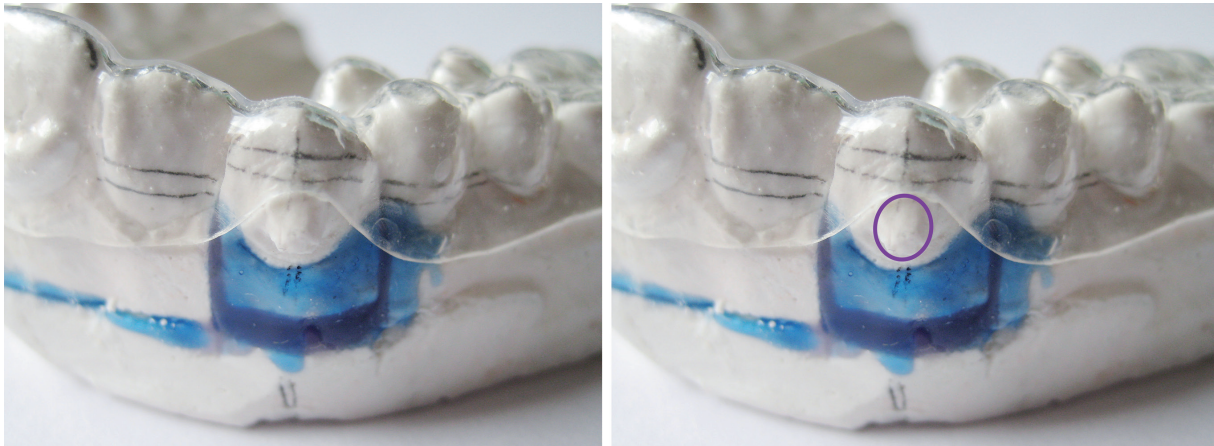


Fig. 78. Set-up with completed extrusion of the tooth and Clear Aligner Hard.

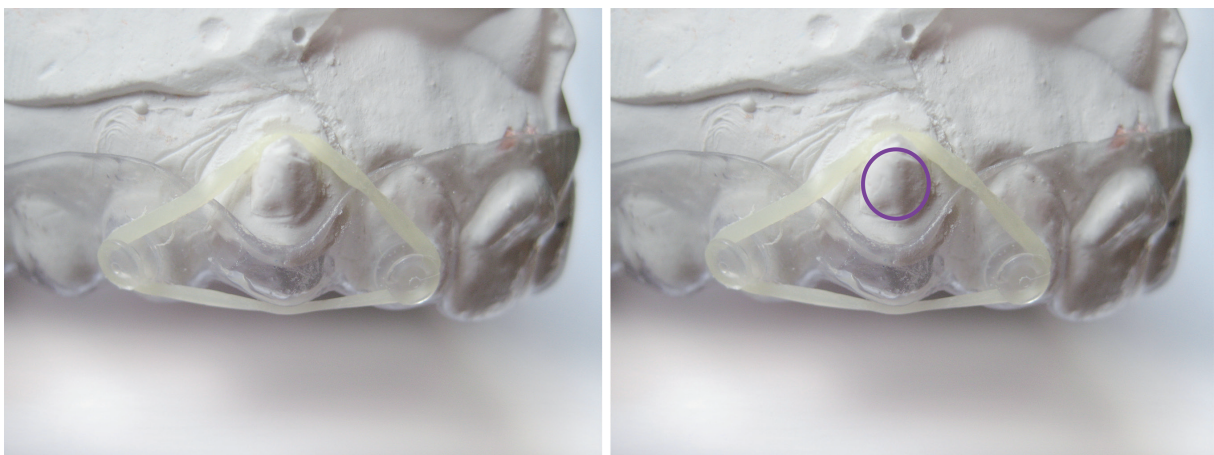


Fig. 79. Clear Aligner Forced Extrusion in the initial plaster cast and with elastics in position.