



CLEAR-ALIGNER®



CLEAR-ALIGNER®

Pablo Echarri

English



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English

Prologue	5
1- Introduction	13
a. Demand for treatment	15
b. Orthodontics to you - O2U	15
c. CA Clear Aligner in the world.....	17
d. Definitions	17
e. CA Clear Aligner principles.....	20
2- Clear Aligner Protocol	21
a. Introduction. Initial questionnaire.....	23
b. Impressions, registers, plaster casts for Clear Aligner	25
c. Protocol without Gestludent/GestAligner	32
d. Protocol with Gestludent/Gestaligner	33
3- Indications and Limitations. Clear Aligner Actions. Advantages	49
a. Indications.....	51
b. Limitations	51
c. Counter indications	51
d. Clear Aligner actions.....	52
e. Advantages of Clear Aligner for the patient	52
f. Advantages of Clear Aligner for the clinician	52
g. BruxChecker.....	53
4- Laboratory Protocol	57
a. Introduction	59
b. Laboratory protocol.....	60
i. One, two or three steps from the same plaster cast	68
ii. Clear Aligner Activable	71
c. Other types of Clear Aligner	72
d. Simple or Double Clear Aligner Retention	73
e. Gingival trimming of Clear Aligner	73
f. Cutting of the Isoflan foil	74
5- Diagnosis	77
a. Anterior and posterior teeth	79
i. Posterior teeth.....	79
b. Bolton Index.....	85
c. Occlusogram	90
d. Occlusal VTO	95
i. Explanations.....	102
e. Set-ups and ideal correction	103
f. Conclusions	121

Index

6- Posterior Teeth Treatment	123
a. Introduction	125
b. Treatment of the posterior teeth mal positions	126
c. Class II treatment	133
d. Class III treatment	145
e. Space closure in molar zone	145
f. Molar uprighting	150
g. Conclusions	154
7- Space Closure Treatment	155
a. Introduction	157
b. Space closure treatments with positive dento-alveolar discrepancy up to 4 mm... 158	
c. When spacing is in anterior zone - incisors and canines - and especially when the teeth are proinclined (positive torque) and the correction is going to be done by retroinclination (by losing torque)	158
i. Space closure mechanics in anterior zone	162
ii. Special considerations	163
d. Cases with small spacing in molar zone, for example, the spacing that remains after debonding of the bands in fixed orthodontics treatments	171
e. Spacing as a result of relapse of a previous extraction treatment with re-opening of spaces in extraction sites	171
8- Crowding Treatment. Expansion	175
a. Introduction	177
b. Expansion	180
c. Transverse expansion	181
d. Sagittal or AP (antero-posterior) expansion or protrusion	185
e. Oblique-transverse expansion	186
f. Control of labio-lingual inclination or torque	187
g. Expansion sequence and spacing control	188
h. Expansion summary	191
i. Case reports	194
9- Crowding Treatment: Stripping	199
a. Introduction	201
b. Definition of stripping	201
c. Conversion factor	202
d. Stripping objective	202
e. Indications for stripping	203
f. Stripping and Bolton Index	203
g. Stripping and tooth shape	206
h. Limitations	207
i. Stripping and black gingival triangles	207
j. How much enamel can be trimmed?	209
k. Progressive Stripping Technique	210

l. Advantages of Progressive Stripping Technique.....	210
m. Instruments.....	210
n. Stripping and Clear Aligner	213
o. Observations	221
p. Conclusions.....	224
q. Case reports.....	225
10- Treatment of Rotations, Inclinations and Torque	229
a. Introduction	231
b. Correction of rotations	237
c. Correction of inclinations	242
d. Correction of torque	243
e. Clear Aligner Template	244
f. CA Buttons bonding on Clear Aligner	245
g. CA Power Grips design	247
11- Intrusion/Extrusion Treatment.....	255
a. Introduction	257
b. Use of Clear Aligner Forced Extrusion and Clear Aligner Forced Intrusion	260
c. Clear Aligner FE (Forced Extrusion) with CA Power Grips 1 MFM and FI (Forced Intrusion)	263
d. Correction of anterior open bite with Clear Aligner FE	266
e. Correction of anterior deep bite with Clear Aligner	267
f. Case reports.....	270
12- Clear Aligner in Mixed Dentition	273
a. Clear Aligner as a space maintainer	275
b. Clear Aligner as a space gainer.....	278
c. Clear Aligner as an occlusal guide	279
d. Clear Aligner for anterior teeth alignment.....	281
e. Clear Aligner as an expansion appliance.....	285
f. Clear Aligner before a functional appliance	288
13- Combined Treatments of Clear Aligner and Fixed Appliances.....	293
a. Introduction	295
b. Clear Aligner before fixed appliances	296
c. Clear Aligner in one arch and fixed appliances in the antagonist arch	301
d. Clear Aligner after fixed appliances	316
e. Conclusions.....	326
14- Clear Aligner in Retention and in Relapse Treatments	327
a. Introduction	329
b. Relapse.....	331

C-A PROTOCOL

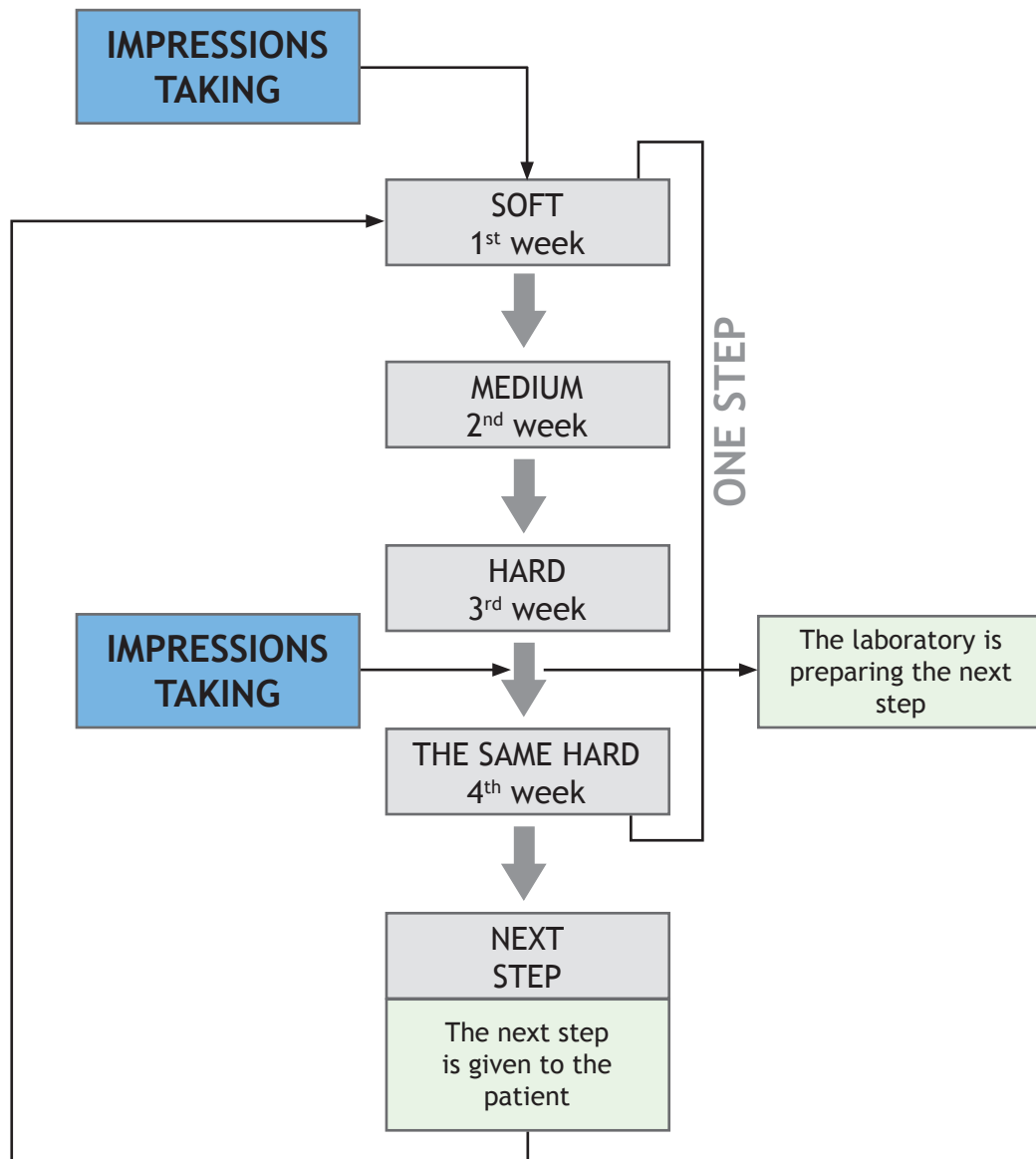


Fig. 3.

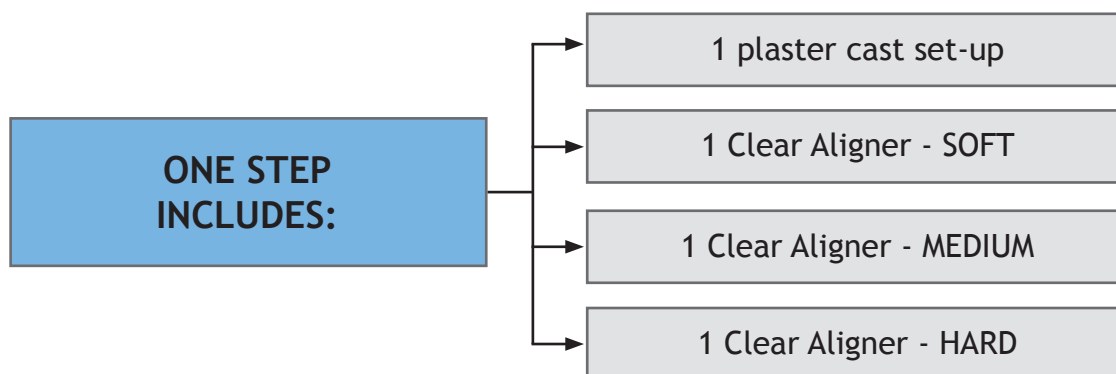


Fig. 4.

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

Fig. 5.

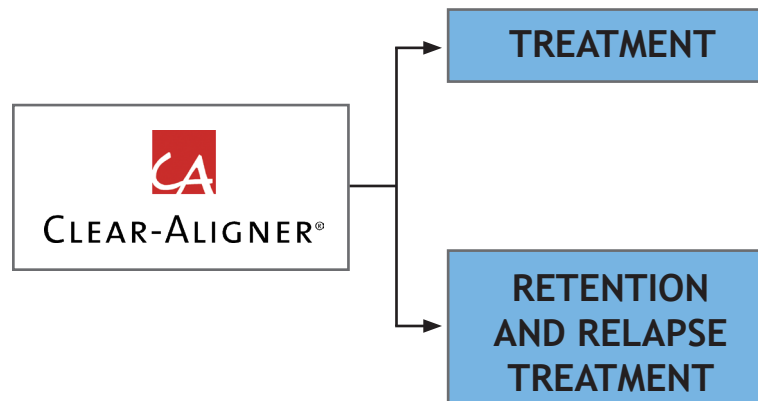


Fig. 6.

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.

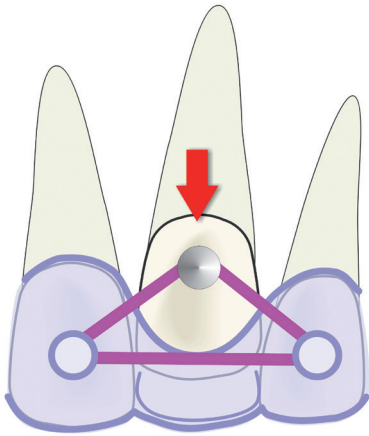


Fig. 27. Forced Extrusion.

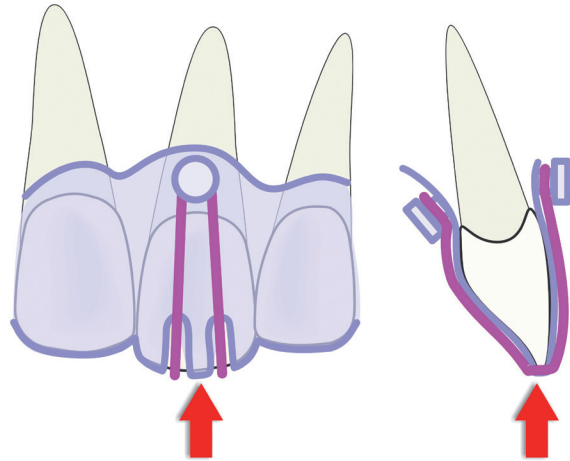


Fig. 28. Forced Intrusion.

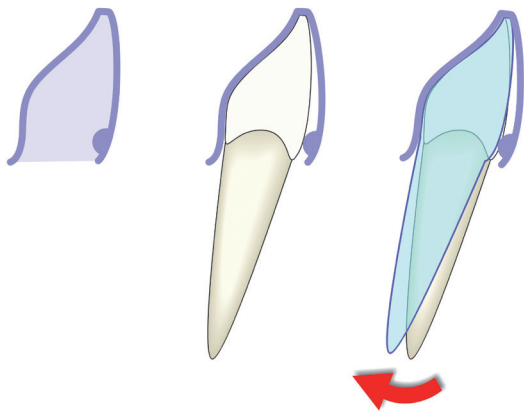


Fig. 29. Labial Power Edge.

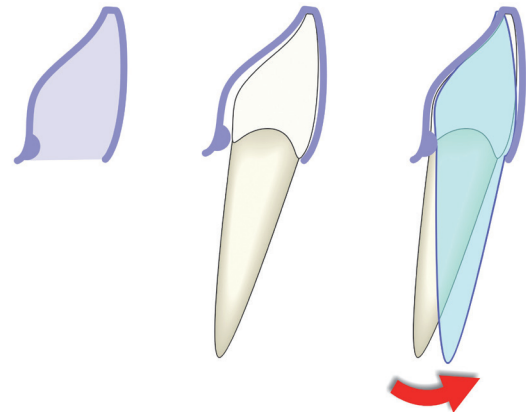


Fig. 30. Lingual Power Edge.

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.

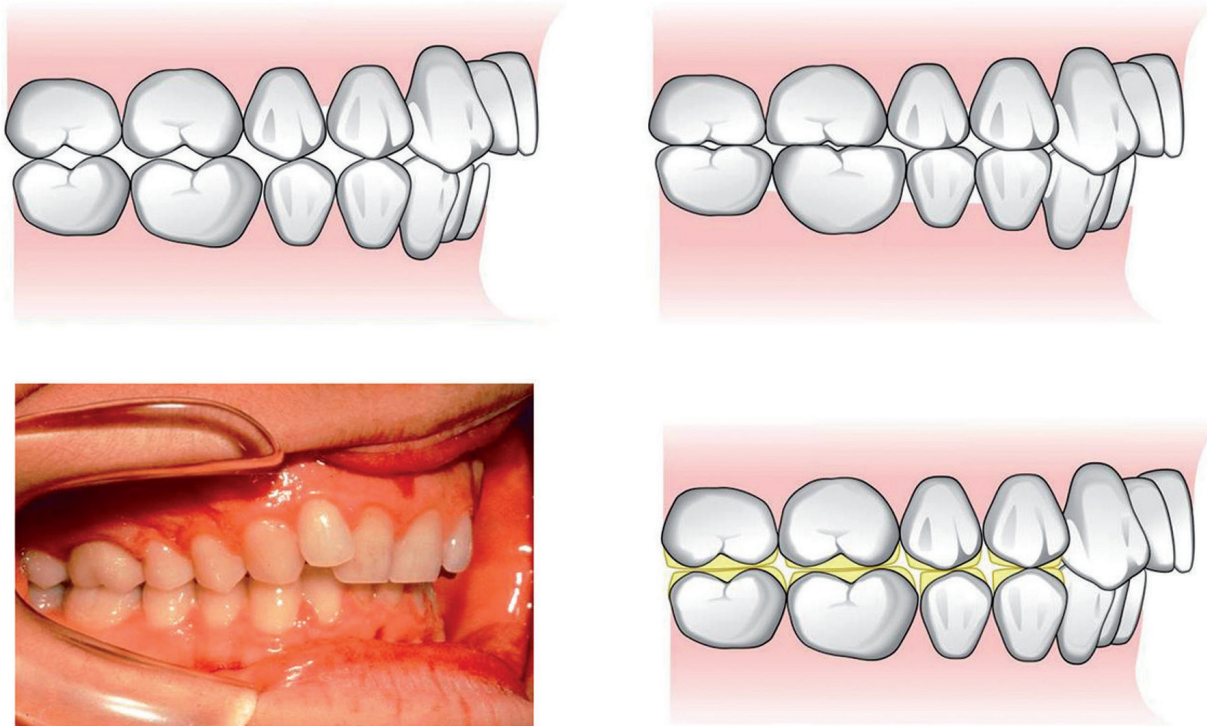


Fig. 9. If a Class II mal occlusion is corrected with a compromise result (not recommendable), the posterior occlusion should be balanced with selective trimming, or with posterior teeth reconstruction.

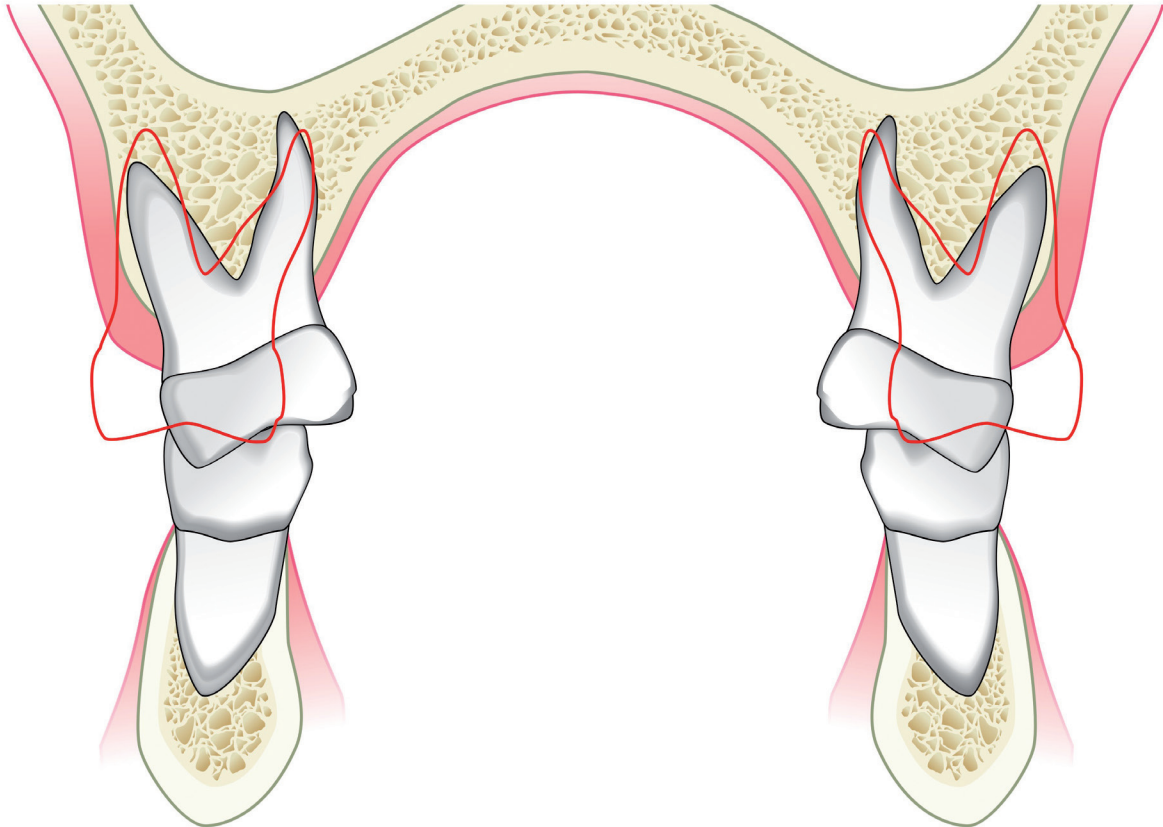


Fig. 10. If a patient presents posterior cross bite with a negative molar torque, an expansion can be carried out before the Clear Aligner treatment. In mild cases, a Clear Aligner Screw (with expansion screw) can be used (see Chapter 8), and in severe cases, a Quad-Helix and a Transpalatal Bar can be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

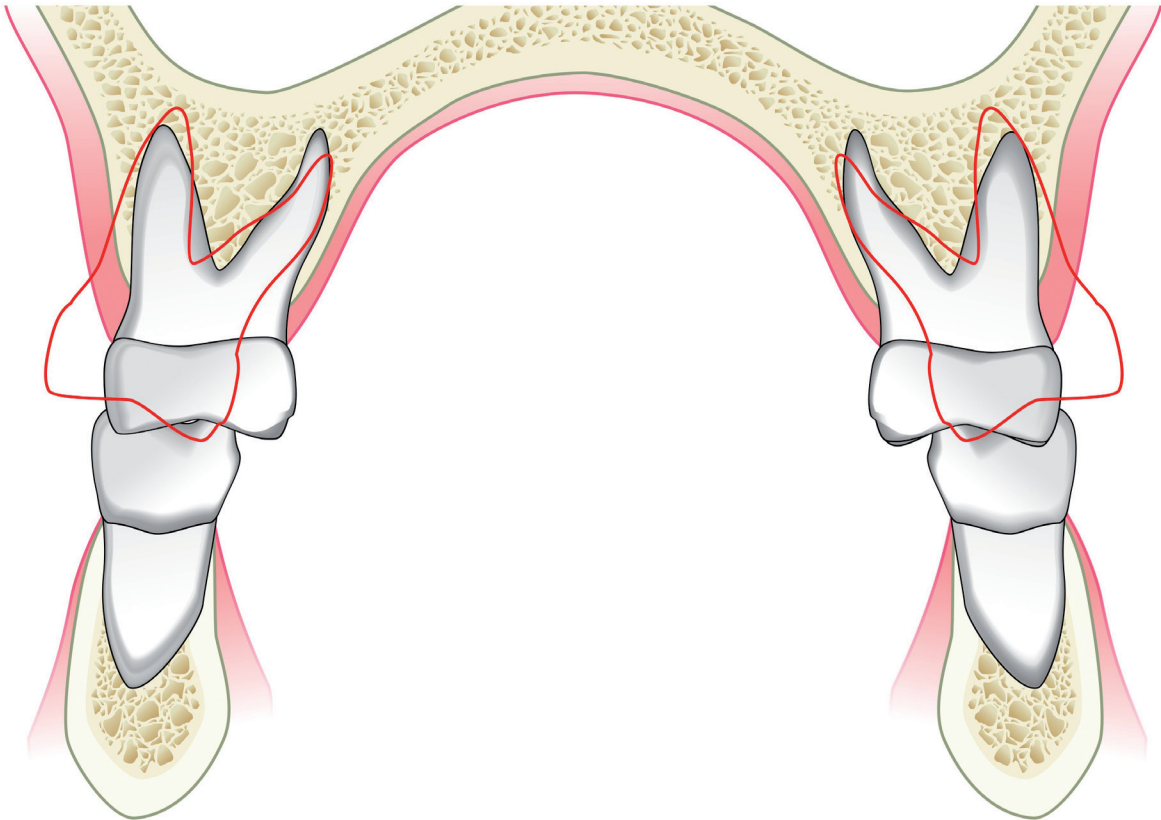


Fig. 11. If a patient presents posterior cross bite with normal or positive molar torque, expansion is not indicated because it would increase too much the molar torque. In this case, first a Rapid Palatal Expansion using the Hyrax screw can be carried out, and after that, the treatment of anterior teeth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

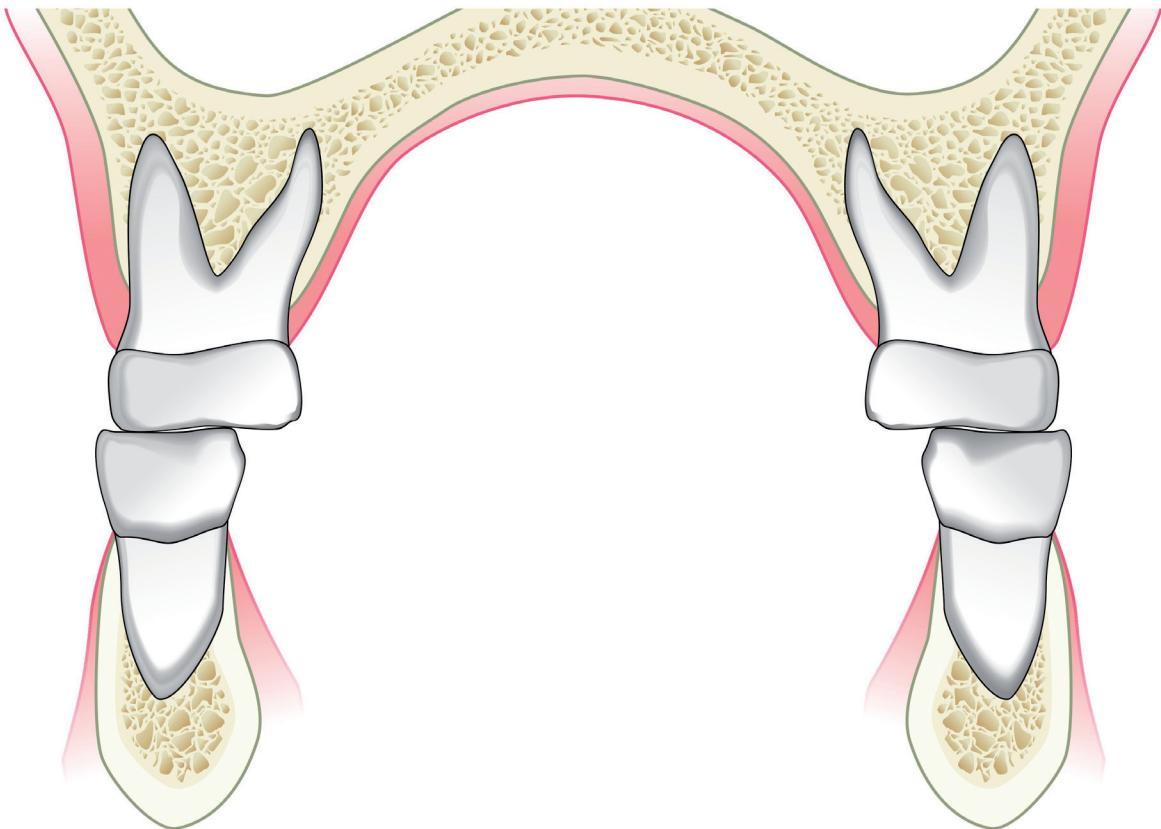


Fig. 12. In compromise treatments (not recommendable) in which the posterior cross bite is not corrected, the occlusion should be balanced with occlusal adjustment by selective trimming.

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.

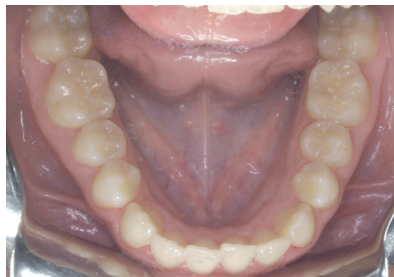


Fig. 81.

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.

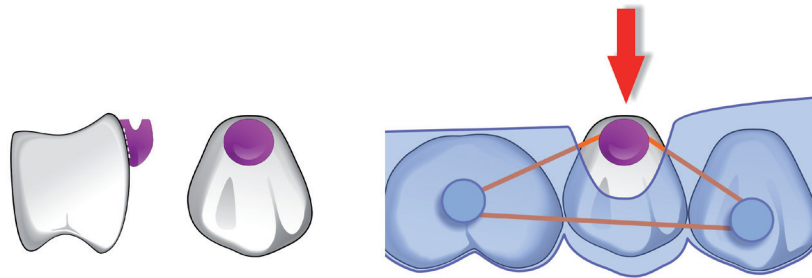


Fig. 75. Scheme of CA Power Grip 1 - MFM for extrusion.

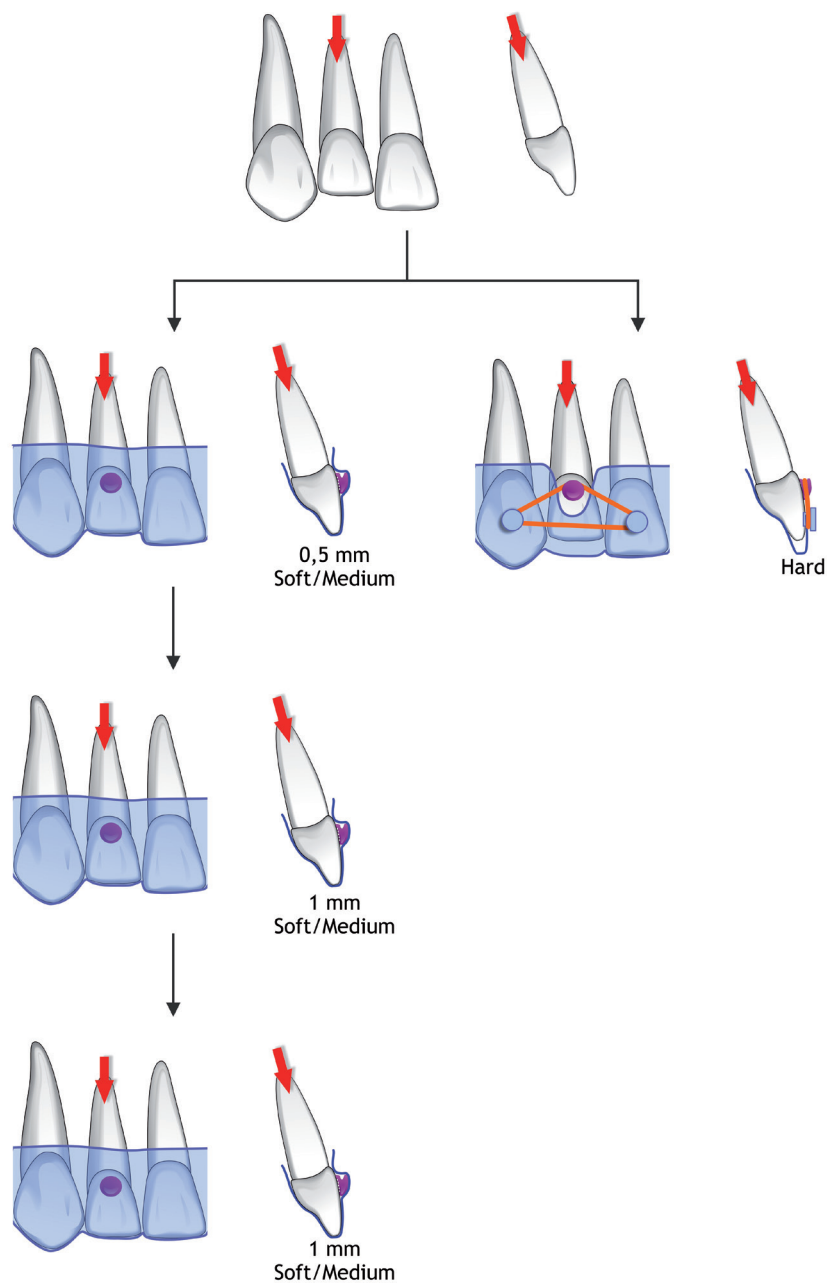


Fig. 76. Scheme of the use of CA Power Grip 1 - MFM for extrusion (see text).



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

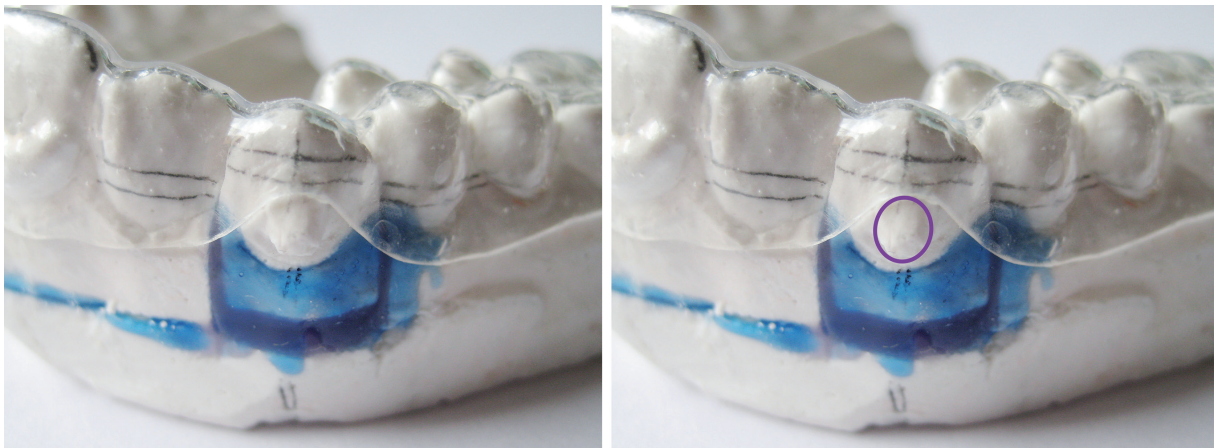


Fig. 78. Set-up with completed extrusion of the tooth and Clear Aligner Hard.

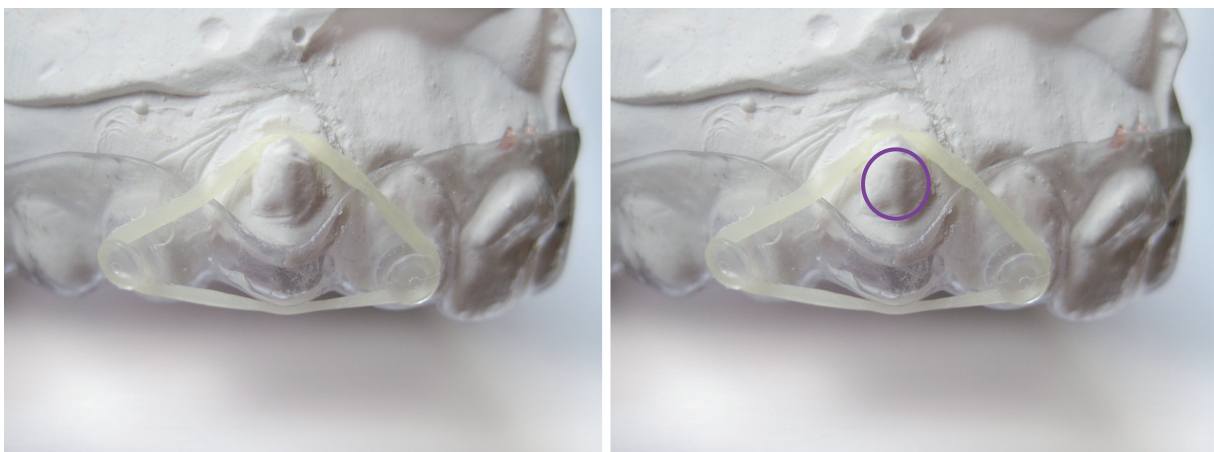


Fig. 79. Clear Aligner Forced Extrusion in the initial plaster cast and with elastics in position.