CASE REPORT

Unilateral Application of the Carriere Distalizer

HECTOR LUIS RODRÍGUEZ, DDS

Space for nonextraction Class II treatment can be gained in many ways through molar distalization, with varying levels of required patient compliance and potential for anchorage loss.[1-4] This article describes the use of the Carriere Distalizer*[5] as a method for simultaneous Class II correction and unilateral space opening in a patient whose facial characteristics called for a nonextraction approach.

Diagnosis and Treatment Plan

An 11-year-old male presented with a Class II subdivision malocclusion, an overjet of 3mm, an overbite of 30%, an upper midline deviated 3mm to the right, and an impacted upper right canine (Fig. 1). In profile, he had an obtuse-to-straight nasolabial angle and a moderately short neck-chin length. The panoramic radiograph indicated a normal eruption pattern except for the blocked-out upper right canine, with all permanent teeth present.

Because of the patient's facial proportions, a two-phase, nonextraction treatment plan was designed. In the first phase, a Carriere Distalizer would be placed on the right side to correct the Class II molar relationship and regain the space needed for eruption of the upper right canine. The second stage would complete the orthodontic correction with fixed appliances.

Treatment Progress

A passive lower lingual arch was placed, and an 18mm Carriere Distalizer was bonded on the right side from upper first premolar to first molar. Class II elastics were prescribed for 24-hour wear (Fig. 2).

After 11 months of Distalizer treatment, a Class I molar relationship had been obtained, with adequate space created for eruption of the blocked-out canine. The upper right second deciduous molar exfoliated during this time, and the Distalizer maintained the leeway space. Upper and lower fixed appliances were then placed for further treatment (Fig. 3).

Treatment Results

Total treatment time for both stages was 28 months (Fig. 4). The midline deviation was corrected without any special mechanics.

Records taken 18 months after debonding show a stable occlusion in a solid Class I relationship, with no significant signs of relapse (Fig. 5).

Discussion

The Carriere Distalizer is a simple-to-use device that is inconspicuous enough to promote

Dr. Rodríguez is Professor and Coordinator, Department of Orthodontics, Escuela de Odontologia, Universidad Nacional Pedro Henríquez Ureña, Santo Domingo, Dominican Republic. Contact him at Max Henríquez Ureña #31, Santo Domingo, Dominican Republic; e-mail: ortoplan@codetel.net.do.

*Trademark of Ortho Organizers, Inc., 1822 Aston Ave., Carlsbad, CA 92008; www.orthoorganizers.com.

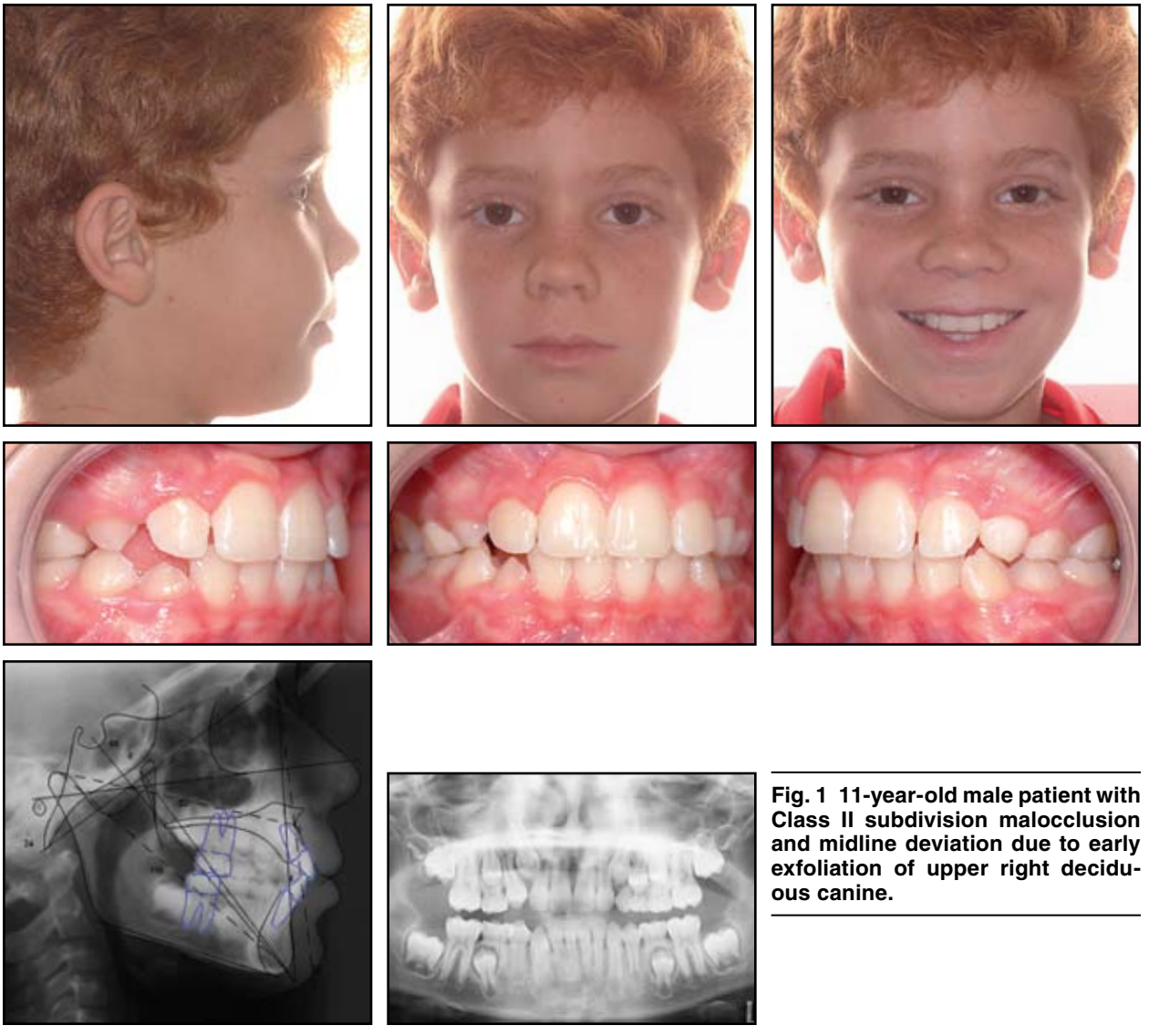

Fig. 1 11-year-old male patient with Class II subdivision malocclusion and midline deviation due to early exfoliation of upper right deciduous canine.

Fig. 2 Carriere Distalizer bonded to upper right first premolar and first molar.

patient acceptance and compliance. Loss of anchorage has not been a significant problem in our practice, although several techniques, including miniscrews, are available for anchoring the Class II elastics.

An open-coil spring could have been used for molar distalization in our patient, but would have required earlier bracket placement. The Distalizer is also more effective than an open-coil spring in achieving controlled derotation of the first molar. It rotates the maxillary first molar around its palatal root while producing bodily distal movement, before other appliances have been placed that could potentially slow treatment with competing forces.[5] I have found the Carriere Distalizer a highly useful addition to my nonextraction armamentarium.

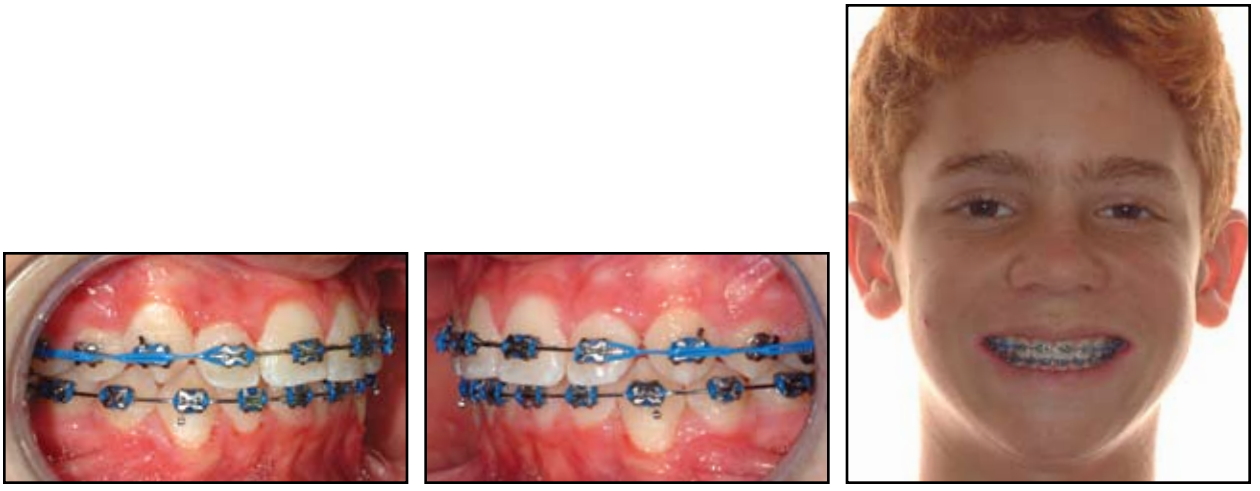

Fig. 3 After 11 months of unilateral molar distalization, upper and lower brackets bonded for second phase of treatment.

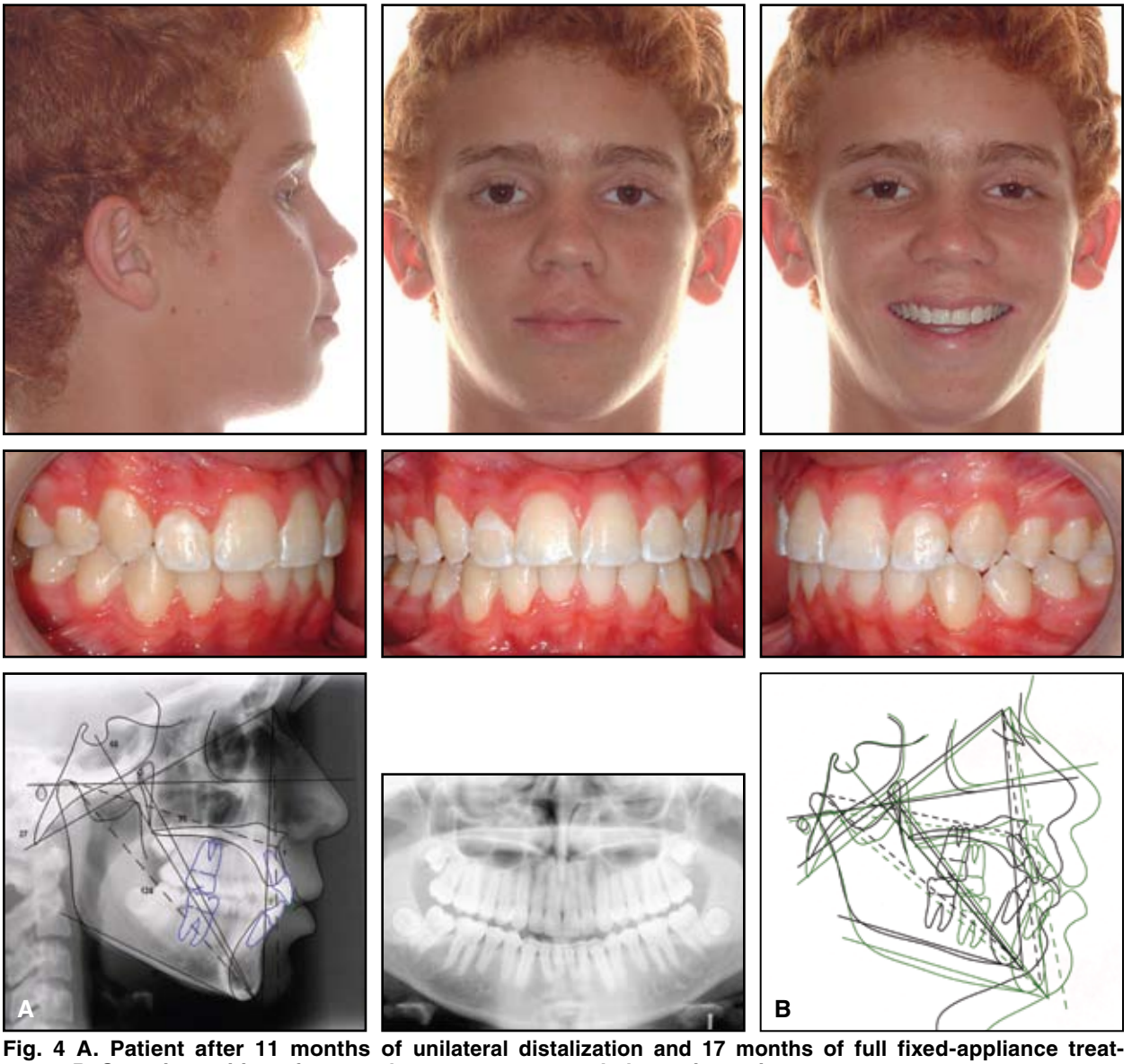

Fig. 4 A. Patient after 11 months of unilateral distalization and 17 months of full fixed-appliance treatment. B. Superimposition of pre- and post-treatment cephalometric tracings.

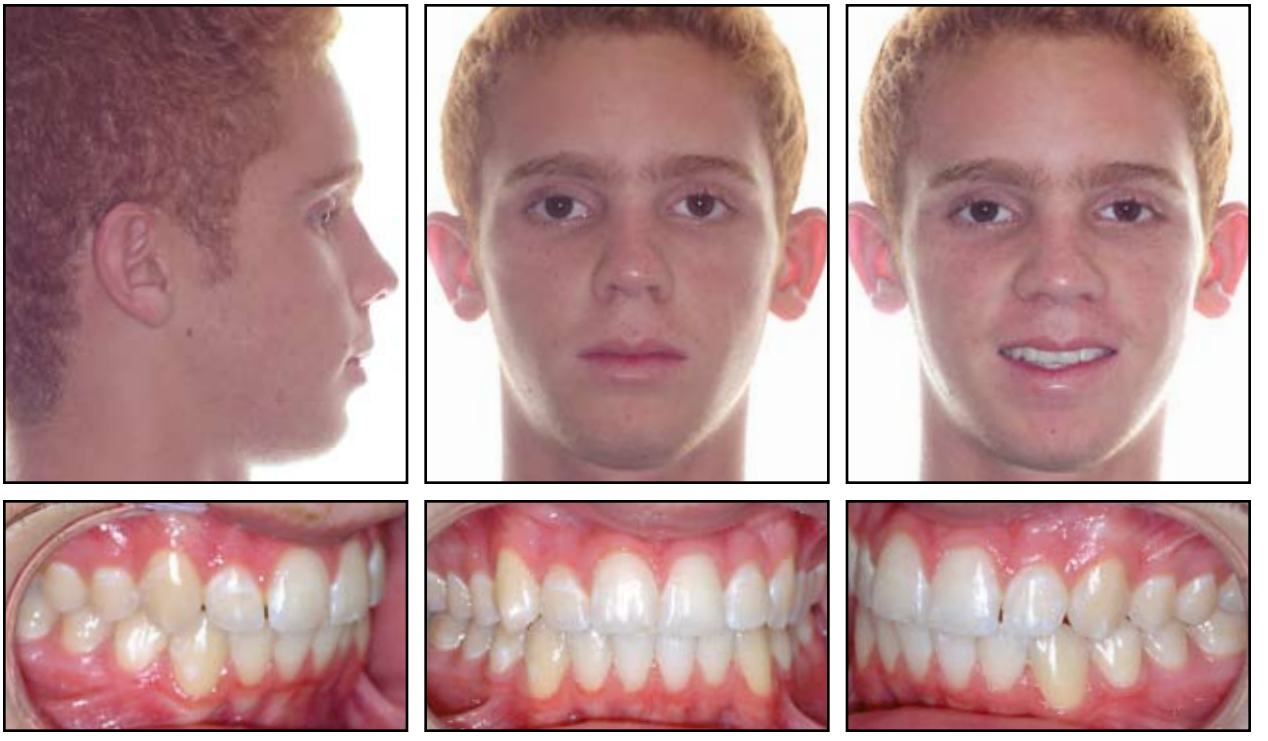

Fig. 5 Patient 18 months after debonding.

REFERENCES

1. Hilgers, J.: The Pendulum appliance for Class II non-compliance therapy, J. Clin. Orthod. 26:706-714, 1992.
2. Gianelly, A.A.; Bonds, P.W.; and Johnson, W.M.: Distalization of molars with repelling magnets, J. Clin. Orthod. 22:40-44, 1998.
3. Carano, A. and Testa, M.: The Distal Jet for upper molar distalization, J. Clin. Orthod. 30:374-380, 1996.
4. Park, H.S.; Lee, S.K.; and Kwon, O.W.: Grouped distal movement of teeth using microscrew implant anchorage, Angle Orthod. 75:602-609, 2005.
5. Carriere, L.: A new Class II distalizer, J. Clin. Orthod. 38:224-231, 2004.