

CASE REPORT

One-Appointment Correction of a Scissor Bite with 2D Lingual Brackets and Fiber-Reinforced Composites

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This article describes a quick and simple method to correct a scissor bite using 2D lingual brackets, a nickel titanium wire segment, and fiber-reinforced composites (FRCs) for anchorage reinforcement.¹⁻⁴

Case Report

An 18-year-old female came to our clinic for correction of a scissor bite between the left second premolars (Fig. 1). After she refused treatment with

conventional labial orthodontic appliances, elastic traction, or miniscrew anchorage, she was offered a plan involving lingual brackets combined with labial FRCs.

Three Philippe self-ligating



Fig. 1 18-year-old female patient with scissor bite between left second premolars before treatment.

One-Appointment Correction of a Scissor Bite

2D lingual brackets* were bonded directly from the maxillary left first premolar to first molar, and a nickel titanium .012" wire segment was fully engaged to move

the second premolar lingually (Fig. 2). A power chain was added to provide a slight distal force component.

An everStick FRC bar**

was then bonded labially to the first premolar and the first molar to form a rigid anchorage unit. The exact length of the FRC bar was measured in the mouth, and

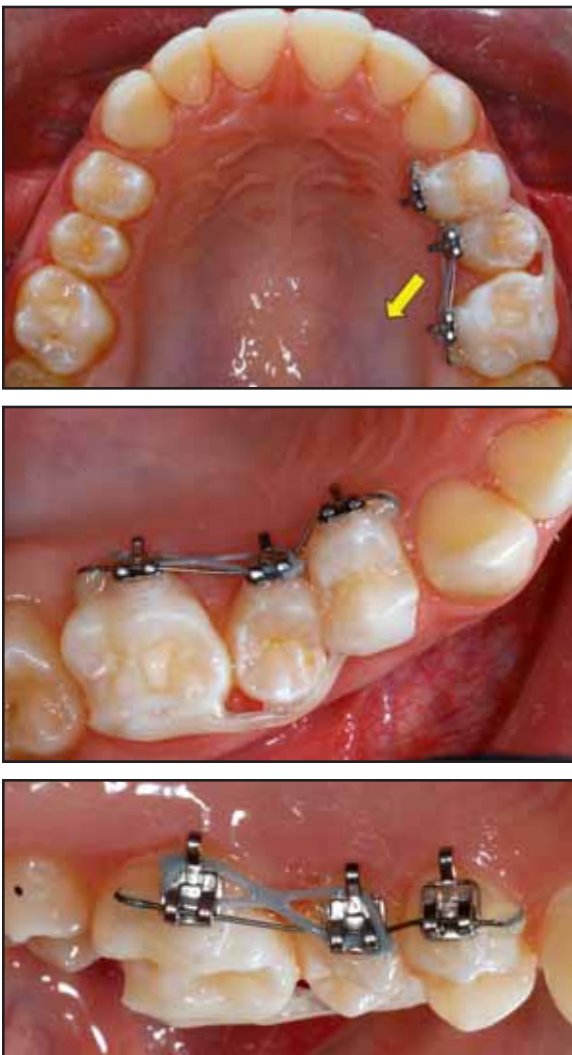


Fig. 2 2D lingual brackets, with .012" nickel titanium wire segment used for lingual movement and power chain for distalization of upper left second premolar. Fiber-reinforced composite bar bonded labially to left first premolar and first molar for anchorage.



Fig. 3 Complete correction of scissor bite after two months of treatment.

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the fiber was cut with scissors directly from the package. The buccal surfaces of the teeth to be bonded were microetched for three seconds each, then etched with 37% phosphoric acid for 30 seconds. The bonding agent was applied with a small brush, and the area was light-cured. A thin layer of flow composite was then applied to the enamel surfaces, and the FRC bar was positioned

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and pressed into place with hand instruments. Each tooth was light-cured for five seconds; the entire fiber bundle was covered with another layer of flow composite, the bonding sites were light-cured for another 40 seconds each.

Two months later (one appointment), the scissor bite was completely corrected without any special patient compliance (Fig. 3). The lingual brackets were left in place for another year to retain the result with an .014" Australian wire segment (Fig. 4).

Conclusion

The 2D lingual brackets are directly bonded to the lingual sur-

faces without any prior setup. Round nickel titanium wires allow the application of low force levels. FRCs can connect any teeth into a rigid anchorage unit, offering an excellent alternative for patients who do not want to display any metal in the mouth.

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Fig. 4 Patient after one year of retention.

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