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[\[PDF \(246K\)\]](#) [\[References\]](#)**A Case Report of Bilateral Brodie Bite in Early Mixed Dentition Using Bonded Constriction Quad-helix Appliance**[Kunihiko Nojima](#)<sup>1)</sup>, [Sakiko Takaku](#)<sup>2)</sup>, [Chiaki Murase](#)<sup>1)</sup>, [Yasushi Nishii](#)<sup>1)</sup> and [Kenji Sueishi](#)<sup>1)</sup>*1) Department of Orthodontics, Tokyo Dental College**2) Division of Orthodontics, Department of Oral Health Clinical Science, Tokyo Dental College*

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**Abstract:** Brodie bite is a comparatively rare type of malocclusion found in primary and mixed dentition. It not only adversely affects chewing and muscle functions, but also impairs normal growth and development of the mandible. This report describes the therapeutic results of a patient with bilateral Brodie bite in early mixed dentition after using a bonded constriction quad-helix appliance. The patient, a boy aged 9 years and 2 months, first visited our hospital after occlusal abnormality in the molar region was detected at a local dental clinic. Case analysis resulted in a diagnosis of bilateral Brodie bite with slight mandibular retrognathism. Treatment objectives were to reduce the arch width of the maxillary dentition and expand the mandibular arch in order to establish and stabilize molar occlusion and to achieve a Class I molar relation and appropriate overbite and overjet. Treatment comprised covering the occlusal surface of the maxillary molars with resin and attaching a bonded constriction quad-helix appliance joined with a 0.040-inch quad-helix wire. A bi-helix appliance was also fixed to the mandibular dentition. Brodie bite visibly improved after 5 months. Cervical headgear was then fitted and the patient observed until eruption of the permanent dentition was complete. Class I molar relation was achieved after 2 years and 6 months, although spacing remained in the maxillary and mandibular dentitions. Treatment of bilateral Brodie bite in mixed dentition by means of a bonded constriction quad-helix appliance attached to the maxillary dentition enabled effective bite opening and reduction in the width of maxillary arch independent of the patient's cooperation, providing good

therapeutic outcome in a short time period.

**Key words:** [Brodie bite](#), [Early treatment](#), [Angle Class II malocclusion](#), [Bonded constriction quad-helix appliance](#), [Bi-helix appliance](#)

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