

Letters to the editor*

Mandibular molar intrusion with mini-implants and the multiloop edgewise archwire technique

We sincerely compliment the authors on the publication of their case report, "Nonsurgical correction of a severe anterior open bite with mandibular molar intrusion using mini-implants and the multiloop edgewise archwire technique" in the April 2018 issue (Freitas BV, Abas Frazão MC, Dias L, Fernandes Dos Santos PC, Freitas HV, Bosio JA. *Am J Orthod Dentofacial Orthop.* 2018; 153:577-87). It was a pleasure reading the article, which mentioned a novel technique for the closure of open bite when the patient is unwilling to have surgery. We would like to put forward a few queries regarding the article.

The pretreatment study models (Fig 2) show the presence of 32 teeth (including third molars) whereas in the intraoral photographs (Fig 1) and the radiographs (Fig 3), the third molars (Fig 3) are missing. It would be of great help if we could know why this mismatch occurred.

The authors state that the intrusion of mandibular molars enabled closing of the anterior open bite by the anticlockwise rotation of the mandible and that the multiloop edgewise archwire technique helped to finalize and refine the open bite closure and tooth uprighting. But the cephalometric analysis and the superimpositions contradict the above statement. The values show the maxillary molars having extruded, thereby nullifying the effect of anticlockwise rotation of the mandible caused by mandibular intrusion: The 6-PP pretreatment value is given as 31 mm, and the 6-PP posttreatment value is given as 32 mm. These values indicate maxillary molar extrusion. Moreover, the superimposition of cephalograms supports this finding. Also, how much the mandibular molar has been intruded is not clear in the article. How much molar intrusion took place? That could provide the effective amount of mandibular rotation.

The authors mentioned that the patient had a tongue thrust habit. But in the treatment plan there was no appliance to restrict the habit. The 50-month review suggests that relapse occurred and the reason put forward was the presence of the anterior disk displacement without reduction. But according to previous studies, the tongue thrusting might have been a contributing

cause for the relapse. Could this habit have played a synergistic role along with the temporomandibular joint problem in bringing the relapse?

It would be of great help if you could enlighten us with their views on the above-mentioned queries. Thank you.

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Author's response

Thank you for inquiring about the article, "Nonsurgical correction of a severe anterior open bite with mandibular molar intrusion using mini-implants and the multiloop edgewise archwire technique" (*Am J Orthod Dentofacial Orthop* 2018; 153:577-87).

Indeed, the initial dental casts had 32 teeth (including third molars) although intraoral photographs and radiographic films had those teeth missing. Initial dental casts were obtained on the first visit in the private practice where treatment was conducted. But the appointment for imaging acquisition was scheduled after all third molars had been extracted, because most private practices in the country do not have x-ray machines, and patients are regularly referred to an outside radiology laboratory to acquire panoramic and lateral cephalometric radiographs.

Counterclockwise rotation of the mandible, although small, did indeed occur. The last line of the mandibular teeth measurements, and possibly one of the most important, was accidentally deleted from the cephalometric measurements table. In that line, the measurement 6-GoMe (distance of the mesiovestibular cusp of the first mandibular molar to the gonion-menton line) was indicated 46 mm before treatment and 43.5 mm after treatment and remained stable 5 years after retention. The reduction was 2.5 mm, demonstrating clear molar intrusion. FMA reduced from 42° to 41° and then 40° after retention. SNB also increased from 73° to 75° and then 78° after retention. The explanation missing from the article was that although maxillary molars extruded ~1 mm, the

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