TWO-PHASE ORTHODONTIC TREATMENT OF SKELETAL CLASS II MALOCCLUSION IN A GROWING PATIENT

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Aim: this case report describes the orthodontic treatment of an 8-year-old male patient with skeletal Class II malocclusion due to mandibular retrusion and severe upper incisor proclination.

Methods: extraoral examination showed a convex profile, slight mandibular asymmetry to the left side, labial incompetence and lower lip interposition between the dental arches. Intraoral examination revealed a bilateral Angle's molar Class II, unilateral posterior crossbite involving teeth 2.6 and 3.6, lower anterior crowding of 1.5 mm and increased overjet and overbite (8 mm and 4.5 mm, respectively). Cephalometric analysis revealed a skeletal class II (ANB 5, Wits 2.51) with a retrusion of mandible (SNB 77) and hypodivergent vertical growth pattern (FMA 18). The treatment followed a two-phase approach: the first phase involved the functional appliance SN1 for 18 months to resolve skeletal Class II while expanding the maxillary arch; the second phase, initiated after the eruption of permanent dentition, involved fixed multibracket MBT appliances for 18 months to refine dental alignment and optimize occlusal relationships.

Results: the two-phase treatment successfully improved skeletal and dental relationships, reducing overjet, deep bite and transverse discrepancies.

Conclusions: early intervention allowed for optimal skeletal development, while the final fixed appliance allowed the proper occlusal settling for a long-term stability of the results.

FIXED MULTIBRACKET ORTHODONTIC TREATMENT IN A PATIENT WITH PIERRE ROBIN SEQUENCE AND DELAY IN COGNITIVE DEVELOPMENT: A CASE REPORT

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Aim: the aim of this work is to present a clinical case of a 13-year-old patient affected by Pierre Robin Sequence (PRS) who was treated with fixed multibrackets therapy. PRS is a rare pathology associated with micromandibulia, glossoptosis and cleft palate. The main objective of the treatment was tooth alignment and occlusion improvement to improve oral hygiene and aesthetics (as requested by the patient and his family).

Methods: the patient, who underwent previous surgery to treat the cleft palate, showed a skeletal and dental class II, labial incompetence and micromandibulia, complete permanent dentition, very severe crowding, ogival palate and increased overjet. The patient was initially uncompliant, since PRS can lead to a delay in cognitive development. A classic 4 extraction fixed orthodontic treatment was performed together with the use of class II elastics. The aim of this treatment was to improve the dental alignment and the dental and skeletal relationship and to facilitate teeth brushing by the patient. The treatment lasted 18 months and, at the end of it, the patient received upper and lower removable retainers.

Results: improved tooth alignment and improved dental class II, solving crowding and optimizing occlusion for better brushing and to facilitate social relationships.

Conclusions: although this was a complex case, considering patient's clinical history and limited compliance, the treatment achieved a good orthodontic compromise, improving function, oral hygiene and aesthetics.