

AUXILIARY EXPANSION ARCH: AN ALTERNATIVE MECHANOTHERAPY FOR DENTOALVEOLAR EXPANSION OF THE UPPER DENTAL ARCH

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OBJECTIVE: To demonstrate an alternative orthodontic mechanotherapy for dentoalveolar expansion of the upper dental arch to correct the posterior bilateral crossbite, with the use of an auxiliary expansion arch. **CASE REPORT:** The patient S.F.L. age 13 was referred to the department of Orthodontics at HRAC-USP for orthodontic treatment with an aesthetic and chewing functional complaint. The diagnosis was, incomplete cleft palate, Class II facial pattern, permanent dentition, dentoalveolar atresia in the upper arch, bilateral posterior crossbite, increased overjet, palatally upper left second premolar, Class II subdivision left malocclusion, left deviated upper midline, generalized presence of diastema in the anterior region, made use of speech prostheses. During a temporary interval in treatment with the speech prosthesis, orthodontic treatment was started, and the brackets Straight Wire were bonded in the upper arch, open coil springs were used to open space for alignment of the premolar (25) during the development of leveling. When the maxillary arch progressed to 0.018 x 0.025-in stainless steel wire, the auxiliary expansion arch were installed which was made in a 0.045-in stainless steel wire for expansion of the upper molars with an activation of 8mm buccally to the tubes and the brackets were bonded in the lower arch which mechanics was developed with closed archs and intercuspdation elastics, so crossbite correction was obtained in 1 year and 5 months. **CONCLUSION:** The finalization of the case occurred in 1 year and 10 months of treatment with the use of an auxiliary expansion arch which can be used as an alternative to the dentoalveolar expansion mechanotherapy devices applied in the upper arch.