

CASE REPORT_5

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Dott. Filippo Cardarelli - Graduated with honors in Dentistry and Dental Prosthetics at the University of Aquila. Specialized with honors in Orthodontics at the University of Milan. He attended numerous advanced courses in Italy and abroad. Author of publications in national and international journals. Author of a new functional orthodontic technique: Elastodontic Therapy[®]. Speaker in Italy and abroad. Private practice in Isernia, Milan, Chiasso (CH), where he deals exclusively with orthodontics and aesthetic dentistry and collaborates with Dr Lorenzo Vanini in the resolution of particularly complex orthodontics cases to be treated with Elastodontic Therapy[®].

P.B. female, age 9.5, presents a malocclusion of Class II skeletal, II Class molar and canine Dx and Sx, midline Sstata Sx, altered inclination of 11 and 21, lower crowding with lingualization of 32



The A.M.C.O.P. Bio-Activators they are the synthesis of all existing functional activators and are suitable for functional and personalized rehabilitation of the patient. They provide a broader and more correct view of the treatment, since the device acts as a harmonious growth of the dentocranio-facial system and stabilizes the result obtained.

Elastodontic appliances are made with a thermoplastic material capable of actively interacting with the occlusion, the muscles of the tongue, the orbicular muscle but at the same time are able to create a so-called elastodontic space which represents the ideal space between the musculature of the tongue (**germinating force**) and those of the lips (**centripetal force**) within which the displacement of the dental elements takes place; therefore it is not the apparatus itself that determines the dental movement but it is the balance that is established between the musculature of the lips and that of the tongue that creates a neutral space within which the dental elements themselves are positioned.

Hence the importance of the therapeutic plan and of the adequate choice of the device in such a way as to avoid inconveniences very often linked to the inadequacy of the same or even to the wrong choice between a standard commercial appliance and an individualized appliance.

These devices have the ability to simulate the correct ratios of modified and correct class I arches and thus induce propulsive, repulsive or expansive effects for different thicknesses of the elastodontic.

The working mechanism of elastodontic devices is such that through the more or less elevated elasticity of the material it is possible to intervene in a three-dimensional manner inside a three-dimensional reality also which is the oral cavity; unlike the common standard functional devices able to work two-dimensionally due to an occlusal relationship often altered by the presence of plaques or showers that make the therapy less biological preventing the achievement of intercuspitation during the therapy itself.

Materials and methods

The therapy through elastodontic devices allows the recovery of the vertical dimension and the restoration of the correct arch shapes; the duration of the therapy is about 18 months with restraint that always takes place with the same apparatus for another 7-8 months. Currently at 9 years of age there is great occlusal stability. The resolution of the skeletal and dental malocclusion is associated with a clear recovery of the posture with consequent improvement of the cervical curve. Once the correction of the molar ratio has been obtained, and the anterior fixture will be carried by the patient only during the night to stabilize the result obtained and guide the eruption of permanent dental elements.

Results

The results obtained show the bilateral first molar and canine class and an excellent intercuspitation, the centering of the median line and of the frenuli, the correction of the axes of 11 and 21. Elastodontic therapy was determined to solve the second skeletal class as well as the excess of overbite and overjet. Correct posture was achieved with only elastodontic treatment.

Conclusions

Preventive orthodontics using elastodontic devices therefore represents an important step forward in the field of orthodontics in the developmental age since it is able to solve most orthodontic problems by transforming many of these cases into ideal occlusions from an aesthetic and functional point of view. Through the elastodontic devices it is possible to correct the malocclusions and at the same time solve the postural problems related to it.

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