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ANTERIOR OPEN BITE TREATED WITH E F APPLIANCE: A CASE REPORT

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Aim. Current trends in pediatric orthodontics aim to identify incorrect development of occlusion and medium/lower facial third as early as possible. Functional appliances are a popular type of device used for treating malocclusion in patients who are growing. Among the functional orthodontic devices intended for this purpose, "Education Functional" is highlighted. It was developed by Dr. Daniel Rollet. In fact, in the occlusal alterations, early preventive treatment with elastodontic devices resulted in avoiding dysfunctional forces from acting on the skeletal pattern, thus reaching a balance between bone basis and muscular components. This report describes a clinical case of a patient (9-year-old female) with anterior open bite associated to oral dysfunction, treated, in the mixed dentition, with EF-line appliance.

Our purpose is to evaluate the effectiveness of this device for the correction of the dysmorphoses.

Materials and methods. Case study of a 9 years old female patient. The patient has been selected at the Section of Orthodontics, Department of Surgical, Oncology and Stomatologic Sciences, University of Palermo, Italy. The extraoral examination showed an armonic profile, an increased nasolabial angle, no facial asymmetry. The intraoral examination showed mixed dentition with an Angle's Class I, anterior open bite, proclination of upper incisors, atypical deglutition and speech defects. The cephalometric showed SNA Angle of 79°, SNB Angle of 77° and Wits 3 mm. It was meant to be appropriate the use of a functional appliance, the device EF-Trainer. The patient has been instructed to use the device for 4 hours during the day and all night long. Exercises for neuromuscular reeducation of the tongue muscles were also performed. These exercises, according to the protocol, are considered to be fundamental in the patient's functional rehabilitation. The treatment lasted 9 months and periodic recall has been performed every 3 months, always by the same operator.

Results. The results, observed on examination after this period of treatment, showed the efficacy of the therapy with the appliance "EF- trainer" for the correction of the anterior open bite. Also, we were able to show an improvement in atypical swallowing and speech defects, with the help of our speechtherapist.

Conclusions. In this case report, the patient showed significant improvements after functional therapy with EF trainer. The child also showed good cooperation to the treatment. The appliance, thanks to the material of which is composed, is comfortable and well tolerated by the patient. Emphasis should be placed on the possibility of using these appliances in early preventive treatments in preschoolers (3-5 years), since it is easy to use and does not require a great patient cooperation. The results obtained suggest it is justified to undertake more rigorous studies to provide a better understanding of the effectiveness of functional therapy with EF devices.