

Unilateral Displaced And Dislocated Fractures Of The Mandibular Condyle In Children: Outcomes Of Conservative Treatment.

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Abstract

Background: The management of mandibular condylar fractures in children is a matter of controversy. The aim of this study is to present and discuss the outcomes of the conservative treatment of unilateral displaced or dislocated condylar fractures in children with mixed dentition.

Methods: Between January 2008 and June 2010 25 children, aged between 6 and 12 years, with fractures of the condylar process referred to the Division of Maxillofacial Surgery. The treatment protocol included the placement of fixed orthodontic appliances, the preparation of a maxillary acrylic splint, and functional exercises for 3 months. Six and 12 months after trauma a panoramic radiograph was obtained and patients underwent clinical TMJ and mandibular motion assessments.

Results: Fourteen children with a mean age of 7.2 years were included in the study. At 1 year follow up, complete clinical and functional recovery was observed in all patients. Malocclusion was not observed in any patient. There were no complaints of pain or subjective restriction of mouth opening. On the panoramic radiograph, a complete healing process leading to a normal condylar process was observed in 13 of the patients.

Conclusions: An appropriate treatment of displaced condylar fractures in children with posttraumatic malocclusion is essential for minimizing consequences on occlusion and facial development. Conservative treatment of displaced condylar fractures in children by the use of a progressively remodeled splint showed satisfactory functional outcomes at 12 months follow up. The use of a progressively remodeled splint guided the appropriate remodelling of the condyles, permitting to obtain the restoration of normal condylar shapes and heights. However, periodic long-term follow-up is recommended to detect and treat possible complications, such as malocclusion, growth disturbances, or ankylosis.

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