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SHORT COMMUNICATION

Mouth breather syndrome with lip incompetence and malocclusion

Síndrome del respirador bucal con incompetencia labial y maloclusión

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ABSTRACT

Introduction: bad respiratory habits can alter the stomatognathic system, as they modify the position of the teeth and the relationship of the teeth to each other, as they interfere with normal growth and the function of the orofacial musculature.
Objective: to describe the parafunctional habits present in children and their relationship in patients with osseo-dental discrepancies according to Angle's classification.
Methods: a brief narrative literature review was conducted as a starting point for a larger study on the parafunctional habits present in children and their relationship in patients with osseo-dental discrepancies according to the Angle Classification. Databases such as Scopus, Scielo and Redalyc were accessed through the Google Scholar search engine.
Development: parafunctional habits are behaviors that occur consciously and then unconsciously, affecting normal dentofacial growth and producing some type of dental malocclusion, which alter the stomatognathic system and functions such as mastication, speech and swallowing. These habits can alter and compromise the balance and normal function of the teeth and jaws, due to different factors such as hereditary, environmental and behavioral factors, which manifest themselves differently in each person.
Conclusions: there is a close relationship between malocclusions and the type of habit, which will depend on the intensity, duration and frequency of the habit, which can cause dental deformities and deformities in the facial structure.

Keywords: Habits; Malocclusion; Dental Occlusion; Jaw Relation Record.

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RESUMEN

Introducción: los malos hábitos respiratorios pueden alterar el sistema estomatognático, ya que modifican la posición de los dientes y la relación que guardan los dientes entre sí, ya que interfieren con el crecimiento normal y en la función de la musculatura orofacial.
Objetivo: describir los hábitos parafuncionales presentes en los niños y su relación en pacientes con discrepancias óseo-dentarias según la clasificación de Angle.
Métodos: se realizó una revisión bibliográfica narrativa, breve, como punto de partida a un estudio de mayor envergadura sobre los hábitos parafuncionales presentes en los niños y su relación en pacientes con discrepancias óseo-dentarias según la Clasificación de Angle. A través del motor de búsqueda Google Scholar se pudo acceder a bases de datos como *Scopus, Scielo* y *Redalyc.*
Desarrollo: los hábitos parafuncionales son conductas dadas de manera consiente y luego de modo inconsciente, afectando el crecimiento dentofacial normal produciendo algún tipo de maloclusión dentaria, que alteran el sistema estomatognático y en funciones como la masticación, el habla y deglución. Estos hábitos pueden alterar y comprometer el equilibrio y la función normal de los dientes y los maxilares, debido a diferentes factores como son los hereditarios, ambientales, y de comportamiento, de los cuales se manifiestan de manera diferente en cada persona.
Conclusiones: existe una estrecha relación entre las maloclusiones y el tipo de hábito, lo que va a depender de la intensidad, duración y frecuencia del mismo, estos pueden originar deformidades dentales y en la estructura facial.

Palabras clave: Hábitos Parafuncionales; Maloclusión; Oclusión Dental; Registro de la Relación Maxilomandibular.

INTRODUCTION

Habits are considered reflex patterns of muscle contraction of a very complex nature that are learned at first, done consciously and then unconsciously, which cause disorders in language and in the physical and emotional development of the child. Non-physiological or parafunctional habits are those that result from a normal function or that are acquired through repeated practices of an act that is neither functional nor necessary. Within them we find: digital sucking, atypical swallowing, oral breathing, onychophagia, cheilophagia. These produce changes or alterations at the dental and bone level, depending on their frequency, intensity and duration, leading to possible malocclusions or dentoskeletal deformations.(1)

Its origin is multifactorial, where malocclusions are the main cause and result in an abnormality in the morphology and developmental functionality of the stomatognathic system, producing an imbalance between external and internal muscular forces, which results in bone deformation.(2)

Malocclusions are alterations in the normal growth of bone structures that have detrimental effects on oral health, because they negatively influence articulation, swallowing and chewing, which can be affected by oral habits and functional alterations.(3)

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According to the World Health Organization (WHO), "Dental malocclusions occupy the third place in prevalence among oral health pathologies, after dental caries and periodontal disease.[4]

Malocclusion is the result of the morphological and functional abnormality of the bone, muscle and dental components that make up the stomatognathic system. Genetic factors and environment are the two main factors. Another factor of malocclusion is the alteration of oral function. This includes articulation, swallowing and chewing, which can be affected by oral habits and functional alterations.

With respect to the relationship that exists between parafunctional habits and dental malocclusions, it is concluded that these habits cause deformities, whether dental or bone, being the main and most frequent factor in triggering malocclusions and will depend on the intensity. and frequency of the habit during the development and growth of the person.

It is identified that parafunctional habits are basically repetitions of the act that extend over time and that can become resistant to changes. These deleterious habits include atypical swallowing, digital sucking, lip sucking, onychophagia, and mouth breathing, among others.

It was detected that there are dentoalveolar alterations associated with deforming oral habits such as overbite and increased overjet, crowding, gyroversion, molar distoclusion, open bite, crossbite, etc.

The purpose of this research work is to update and describe the parafunctional habits present in children and their relationship in patients with bone-dental discrepancies according to Angle's classification.

METHODS

A brief narrative bibliographic review was carried out as a starting point for a larger study on the parafunctional habits present in children and their relationship in patients with bone-dental discrepancies according to Angle's Classification. Through the Google Scholar search engine, databases such as Scopus, Scielo and Redalyc could be accessed and studies with scientific quality and published randomly without taking into account dates were taken into account as an initial information collection process for a review. systematic.

DEVELOPMENT

When posing the problem, it is found that bad breathing habits are a frequent alteration, the same ones that negatively alter the stomatognathic system. It is closely associated with malocclusions and myofunctional anomalies. The prevalence of oral habits in preschool children ranges from 1,1 % to 71,4 %.[1] According to the World Health Organization, malocclusions due to mouth breathing are third in prevalence among oral health conditions, after dental caries and periodontal disease.

The Pan American Health Organization (PAHO) states the high incidence and prevalence rates of malocclusions, worldwide it ranges from 35 % to 75 %, in developed countries it is 75 %, in Latin America it is 77 %, in our country studies reveal 83 %.

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Likewise, many more recurrent deforming habits have been implicated, including digital sucking, mouth breathing, lip thrusting, onychophagia, and biting fingers or objects. The same ones that result in alterations in occlusion, as well as disorders in language and in the physical and emotional development of the child.[5]

The present investigation reveals how oral breathing habits and the relationship affect patients with bone-dental discrepancies according to their etiology, mainly in a young population, with the purpose of scientifically demonstrating the etiology, dental characteristics, and risk factors. that can alter the normal formation of dental bone growth.

Non-physiological habits constitute one of the main etiopathogenic factors of malocclusions, therefore, they are a primary or secondary cause of them, which is why they can affect the infant if they are not treated in time. At the same time, in this study it is essential to have knowledge of the dental problems that can affect a very early population and to know the importance of dental prevention, since they can negatively influence society.

Bad oral breathing habits are the cause of bone-dental deformities, which alter the normal development of the stomatognathic system and can modify the dental position and the occlusal relationship that must exist in the upper jaw and lower jaw of each patient.

These habits can be defined as repetitions or customs acquired over a period of time, which are done consciously at first and then unconsciously, which triggers distortion in the growth of the jaws, causing dental malocclusions that may be of multifactorial origin. in which hereditary and structural factors intervene, such as the size of the teeth and bone, as well as environmental factors, such as deforming oral habits.[6]

HEestablished a classification of oral habits into three types; which are categorized as nervous type, in which there are digital sucking, lip thrusting, atypical swallowing, biting of fingers or objects, secondly, there are parafunctional habits and finally occasional habits.[7]

In the same way ArteAga Espinoza SX.[7] Aindicates that deforming oral habits interfere with the normal development of alveolar processes, stimulating or modifying the direction of growth in certain dentomaxillofacial structures. And it will practically depend on three important factors for there to be an orofacial repercussion or damage, and that is depending on how long the behavior lasts, the age at which the habit begins, and its frequency.

In a descriptive and cross-sectional study, dental malocclusion and deforming oral habits at an early age are related in a sample of 150 schoolchildren aged six and seven years, giving a result with predominance in the male sex of (52,0 %), malocclusions in the same sex (59,3 %) and the use of bottles as a deforming habit (41,1 %). In conclusion, it was determined that the majority of schoolchildren with deforming oral dysfunctions and dentofacial conditions complement each other. [3,8,9]

Similarly in Arias GC et al.,[8] mention that non-physiological habits and malocclusions are one of the main conditions or most relevant problems in Dentistry, since being an etiological factor they cause consequences in normal occlusion producing some type of dentoskeletal malformation such as open bite, crossbite, dental crowding, aesthetic problems, chewing among others. In this study, the result obtained in a bivariate analysis found that 40,7 % of children present non-physiological habits, with onychophagia being the most frequent habit in the children.

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Mesa NY et al.,[9] in his study: "Deforming oral habits and malocclusions in children from the Polyclinic Máximo Gómez", carried out a descriptive, cross-sectional study in 132 school children by stratified sampling with equal fixation, paired by sex to determine the impact of deforming oral habits and occlusal alterations in children aged zero-11 years. It was identified that the most frequent habit was bottle sucking (69,69 %), followed by tongue thrusting (62,87 %) and sucking of the thumb or other fingers (45,45 %). It is concluded that deforming oral habits cause alterations in occlusion, with molar distoclusion predominating, with the male sex being more affected.

On the other hand, Espinoza IS et al.,[10] They report that deforming oral habits have consequences on normal occlusion, this is due to the frequency, time and age at which the habit begins. In the same way that the unnatural forces on the teeth can cause dentomaxillofacial alterations.

Non-physiological habits are the primary cause of dentofacial deformities that negatively affect the maxillofacial complex which is made up of the skeletal system, dental system, and muscular system.[11]

Factors that modify the action of the habit. Parafunctional habits are the primary or secondary cause that generates an imbalance in the orofacial muscles and possible malocclusions or dentoskeletal deformations. The degree of alterations depends on the duration, intensity and frequency of the habit.

Firstly, the age at which the habit begins means that the older it begins, the greater the damage that can be caused, since in the initial stage the bone can be moldable. Secondly, there is the time, whether minutes or hours that the bad habit can last. Finally, there is its frequency, this can be the times it is done during the day.[12]

In its duration They are classified into:
Children: It is found from birth to two years, during this time of life the normal pattern of the infant's behavior is formed, there are no harmful effects at this age.

Preschool: Followed by children's, it begins from ages two to five. If the habit is done occasionally, it will not have harmful effects on the teeth; If it is continuous or intense it will cause poor dental position in primary teeth. If the habit is lost before the age of six, this will not cause a major deformity or there is a high percentage that it will be reversible or the small deformity will be reduced more efficiently.

CONCLUSIONS

Myofunctional or parafunctional habits can cause a noticeable imbalance in the individual's facial and dental development. Since they interfere in the oral cavity, exposing them to important physiological changes while the child develops, such that these oral habits have a harmful influence on normal occlusal development.

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Author contributions
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