14 domains as exploratory measures. To recognize factors independently associated with TMJ arthritis, multivariable logistic regression was performed.
Results: The demographic data, age and gender distribution, JIA types, drug therapy and the serological values of the sample are presented for a total of 88 patients participated in the study; 32 patients in the JIA +TMJ group,30 patients in the JIA group and 26 patients in the control group. The examined groups were matched for age and gender. Compared with patients without TMJs arthritis, JLA patients with TMJ arthritis presented higher functional disability. The multivariable logistic regression analysis performed showed that female subjects (OR = 1.5, P = 0.041), with a JIA duration over 3.9 years (OR = 2.7, P = 0.033) and presenting higher C-HAQ and CPQ11-14 scores (OR = 2.7, P = 0.012 and OR = 2.9, P = 0.015,respectively) were the greatest determining factors for TMJ arthritis.
Conclusions: JIA patients with TMJ arthritis presented a significant higher functional disability and daily difficulties and lower OHRQoL scores compared with JIA patients without TMJ arthritis. TMJ arthritis was associated with high JIA duration and activity and influenced some activities, such as eating, hygiene, emotional and social well-being, especially in female subjects.

Dental characteristics of patients with sleep-related breathing disorders (OSAS): a literature review

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Aim: The aim of this study was to analyze dental characteristics of patients with sleep-related breathing disorders (OSAS).
Methods: A review of the literature on the dental characteristics of pediatric OSAS patients was performed on the following search engines: PubMed, Scopus, ISI Web of Knowledge and Google scholar. Inclusion criteria: age between 2 and 18 years. Exclusion criteria: patients with primary immunodeficiency or AIDS, craniofacial syndromes (cleidocranial dysplasia, Silver Russel syndrome), non-syndromic deformities of the maxillary complex (cleft palate, emifacial microsomia), previous surgical treatments of the face and previous orthodontic treatments. The following measurements made on the dental models were considered: upper inter-molar diameter (from the palatal cusp of 1.6 to the palatal cusp of 2.6), lower inter-molar diameter (from the distolingual cusp of 3.6 to the distolingual cusp of 4.6), upper and lower inter-first deciduous molar diameter(between the tips of the mesio-lingual cups of the primary molars), upper incisal inclination (the average inclination of the facial axis of the crown of 1.1 and 2.1 with respect to occlusal plane), lower incisor inclination (the medial inclination of the facial axis of the crown of 3.1 and 3.2 relative to the occlusal plane), left and right Angle classification (I, II, III), overbite (the vertical overlap of the maxillary and mandibular anterior teeth), overjet (the horizontal overlap of the maxillary and mandibular anterior teeth), maxillary and mandibular arch length (from the labial surfaces of the incisors perpendicular to a line connecting the distal surfaces of the second molars), palatal height (depth of the palate posteriorly to the last molar, as the distance farthest from the horizontal line to the palatal apex), maxillary and mandibular arch breadth (the length of the line connecting the cusps of the canines, the mesiolingual cusps of the primary first and second molars and the permanent first molars, and the lingual cusps of the first permanent premolars or the second permanent premolars) and crowding (moderate or severe if there was >4 mm lack of space in the dental arch, and mild if >2 mm, but <4 mm lack of space existed).
Results: Patients with OSA presented short lower facial height with excessive overbite and larger overjet, full or subdivision class II molar relationship and tendency to maxillary and mandibular crowding. No statistically significant difference in the length of the upper arch, in the palatal height and in the mandibular width was found. The distances between the teeth for the first and second deciduous molars and the first permanent molars were significantly narrower than controls.
Conclusions: Patients with OSA did not seem to have a standard facial structure. They had a vertical facial disharmony and dental measurements demonstrated that the patients with sleep-related breathing disorders had a more narrow upper jaw.

Association between condylar morphology and mandibular asymmetry. Cases report

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Aim: The mandibular asymmetry is defined when there is an unbalanced regarding to the homologous parts composing to the mandible complex affecting the proportions among the structures.This condition

is relatively common, with a prevalence of 21% to 85%.The etiology of mandibular asymmetries is multifactorial, including genetic, environmental and congenital influences. Temporomandibular joint (TMJ) structural abnormalities are important etiologic factors that may lead to mandibular growth disturbances. Some alterations of condylar morphology can lead to the development of mandibular asymmetry: Bifid or trifid mandibular condyles are extremely rare entities, of unknown etiology, although they have been associated with trauma involving the temporo mandibular joint (TMJ). Although there are cases supportingthis hypothesis, bifid condyle has also been reported in patients with no known history of trauma; Condylar Hyperplasia is a disorder characterized by an excessive bone growth of the mandibular condyle which brings a number of facial, occlusal and functional alterations that may also interfere with the patient's psychosocial development; Condylar hypoplasia is a bone disease characterized by the decreased development of one or both the mandibular condyles. All these alterations of condylar growth lead to the development of mandibular asymmetries that are usually asymptomatic. The objective of this report is to describe three cases of mandibular asymmetry associated with trifid condyle, condylar hyperplasia, bifid condyle and condylar hypoplasia, which were attended by the Orthodontic Department in the Faculty of Dentistry of the University Central of Venezuela. Cases Report: 1- Male patient of 12 years of age, asymptomatic, with a history of facial trauma at 3 years of age. An extra-oral examination revealed a slight mandibular deviation towards the left side. Skeletal and dental Class II patient with deep bite was present.The articular clinical evaluation presented normal-mobility in opening and closing and in excursion movements, as well as the absence of joint noises. The evaluation of Computed Tomography (CT) shows a trifid condyle on the left side. 2- Male patient of 15 years of age, with antecedent trauma at the chin at 4 years of age. Extra-oral examination revealed gross facial asymmetry of the lower third of the face with deviation of the mandible to the left side. Patient showed a skeletal and dental Class I, deep bite and canting the occlusal plane. There was evident reciprocal clicking of the left TMJ and pain associated on palpation of the left TMJ. CT revealed condylar hyperplasia in the right TMJ. MRI showed disc displacement with reduction in left TMJ and disc thinned in right TMJ. 3- Female patient, asymptomatic, 21 years old with severe mandibular asymmetry with deviation on the right side. Skeletal Class III and dental Class I right and left Class III with canting of the occlusal plane. The TMJ evaluation revealed bilateral noises. CT showed a bifid condyle on the left side and condylar hypoplasia on the right side. In MRI, bilateral disc displacement was observed. Conclusions: The relationship between TMJ morphology and facial skeletal deformities was reported from many authors. These cases suggested that mandibular asymmetry was associated with condylar morphology. Understanding the etiology of mandibular asymmetry is extremely important in the management of patients. Early diagnosis of this condition is the key for satisfactory results in such patients.

Simplified protocol for tomographic evaluation of mandibular asymmetry

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Aim: Facial asymmetries occur near and even above 20% of the patients who attend consultation of Orthodontics. They are the result of the interaction of multiple factors that influence the growth and development, causing discrepancies in size and position between various structures that make up the complex facial skull that depending on the severity and the potential for adaptation of the individual may compromise your facial balance and function. The etiology is believed to be related to congenital, developmental, or acquired factors. Genetic and trauma-related asymmetries may involve muscles, produce excessive unilateral growth, or adversely affect mandible development. Genetic and trauma-related asymmetries may involve muscles, produce excessive unilateral growth, or adversely affect mandible development. The growth of the skull, maxilla, and mandible are closely related. If growth is altered in one of these areas, the asymmetric growth and development of part of the craniofacial skeleton may result in a chin deviated from the mandibular midline. The advent of computed tomography has greatly reduced magnification errors from geometric distortions that are common in conventional radiographs. The three-dimensional software (3D) recently introduced allows 3D reconstruction and the multiplanar images obtained from the tomography allow the quantitative measurement of the maxillofacial complex, useful to understand the asymmetric structures involved. The aim of the present work was developing a simplified protocol on Cone Beam tomography (CBCT) or computed tomography (CT) images, for evaluation of the morphology and dimensions of bone structures involved in the etiology of mandibular asymmetry, for better diagnosis and treatment planning.
Methods: Based on the review of the literature is