Clinical Guideline on Acquired Temporomandibular Disorders in Infants, Children, and Adolescents

Originating Committee
Clinical Affairs Committee – Temporomandibular Joint Problems in Children Subcommittee

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Purpose

The diagnosis and treatment of acquired temporomandibular disorders in infants, children, and adolescents have received increased attention in the past few years.[1] There is controversy regarding the significance of signs and symptoms of temporomandibular disorders in this age group, the value of certain diagnostic procedures, and what constitutes appropriate therapy.

Background

The reported prevalence of temporomandibular disorders in infants, children, and adolescents varies widely in the literature.[2-5] Various signs and symptoms have been used to define temporomandibular conditions; however, it is not clear whether these signs and symptoms constitute normal variation, preclinical features, or manifestations of a disease state. Prevalence of signs and symptoms increases with age.

Temporomandibular disorders have multiple etiological factors.[6] Many studies show a poor correlation between any single etiological factor and resulting signs and symptoms. Inadequate research has been conducted to adequately predict which patient will or will not develop temporomandibular disorders.

Head and neck macrotrauma

Trauma to the head and neck is reported to be an etiological factor in pediatric patients.[7,8]

Occlusal factors

There is a relatively low association of occlusal factors and the development of temporomandibular disorders.[9,10] However, several occlusal features characterize diagnostic groups:

1. skeletal anterior open bite;
2. overjet greater than 6 to 7 mm;
3. retrocuspal position (centric relation) to intercuspal position (centric occlusion) slides greater than 4 mm;
4. unilateral lingual cross bite;
5. 5 or more missing posterior teeth.

Parafunctional habits/microtrauma

The literature on the association between parafunction and microtrauma and temporomandibular disorders in pediatric patients is contradictory.[11]

Orthodontic treatment

There is no evidence that orthodontic treatment causes the development of temporomandibular disorders.[12,13]

Diagnosis and management

Diagnosis includes a combination of historical information, clinical examination, and temporomandibular joint imaging.[14,15]

A screening history for temporomandibular disorders should be performed on all patients and include questions concerning the presence of head and neck pain and mandibular dysfunction. Positive findings indicate the need for a more comprehensive history and a thorough clinical examination.

The examination should include medical and dental histories, a history of present illness and an account of present symptoms, palpation of masticatory and associated muscles and the temporomandibular joints, recording of joint sounds, range of mandibular movements, and occlusal data.

Imaging can be a valuable adjunct, especially if uncertainty in the diagnosis and possible etiology exists. Joint imaging is indicated only on a selected basis for joint sounds in the absence of other temporomandibular disorders signs and symptoms. For example, the presence of significant crepitus may be indicative of degenerative change that is not yet painful.

Presently there are no controlled studies to support prophylactic modalities of therapy.

There are few studies that present data documenting success or failure of specific treatment modalities with the temporomandibular disorders in infants, children, and adolescents on a long-term basis. These suggest that simple, conservative, and reversible types of therapy are effective in

reducing most temporomandibular disorder symptoms in children.[16,17] Reversible therapies include patient education, physical therapy, behavioral therapy, medications, and occlusal splints. Presently, there is inadequate data suggesting that irreversible therapies are useful in the management of temporomandibular disorders in the pediatric population. Irreversible therapies include occlusal adjustment, mandibular repositioning, and orthodontics.

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