

**ASSESSMENT OF TEMPOROMANDIBULAR JOINT PATHOLOGY IN  
CHILDREN**

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**ABSTRACT**

The dental system is a complete biomechanical system, so if a pathological change occurs in one of their links, it can negatively affect the dental system and the entire body. Loss of one or more teeth in a row of teeth, abnormal bites, incorrect placement of teeth can lead to a violation of occlusion and subsequent pathological changes in the temporomandibular joint. The loss of unilateral molars leads to unilateral chewing of the patient, which leads to asymmetry of muscle activity and changes in the process of the lower jaw joint (khvatova V. A. 2003).

According to many scientists, TMJ dysfunction is based on occlusive disorders of the teeth and dentition. Functional occlusion is disrupted as a result of defects in the dentition. Asymmetry of the condyle activity leads to an asymmetric location of the joint head, damage to the nerve end leads to damage to the joint capsule, damage to the peripheral region of the disk and circulatory disorders in the articular organs, which leads to various pains (Ivasenko P. M., Miskevich M. I., Savchenko R. K., Simakhov R. V. 2007; Semenov R. R., Karpov S. M., Khatuaeva A. A., Karpov A. S. 2014).

Dental defects and dental anomalies in children remain one of the most urgent problems if they are not detected at an early stage and are not promptly eliminated, which leads to functional losses in the temporomandibular joint.

**The purpose of the research is** To evaluate and treat temporomandibular joint pathology and dental occlusion disorders in children based on research.

**Object and methods** Of research in 2018-2019, we conducted dental examinations among 642 students aged 6 to 18 years in Bukhara. Of the students surveyed, 346 were girls and 296 were boys. During the clinical examination, we also collected anamnesis and paid attention to the presence of local and General diseases of the body, taste conditions, unpleasant taste in the mouth, salivation.

When examining the teeth, we paid attention to its color, size, location, the presence of cracks and fractures of the teeth, increased or decreased sensitivity, mobility. Examination of the organs and tissues of the oral cavity showed the presence of teeth and dentition, periodontal condition, the presence of dental fillings and their condition. The condition of the temporomandibular joint was assessed by palpation, auscultation, and x-ray examination. Computed tomography (CT) examination is important in patients with TMJ musculoskeletal dysfunction. Analyzing the CT results, we focused on the symmetry of the head of the lower jaw joint relative to the sagittal plane of the joint. CT analysis was performed by Zhulev E. N., Yershov P. E. (2016).

Of the 642 children examined, 114 children with permanent pathological changes in the permanent dentition were taken to a dispensary for orthodontic treatment at the children's dental educational, scientific and practical center and the regional dental clinic. Of these children, 79 were separated based on complaints from children with abnormal changes in the temporomandibular joint. 17 children of the main group had a cross-section, and 15-a deep one.

CT scans analyzed the displacement of the head of the joint depending on the type of bite. In 20% of children with orthognathic teeth, the lower jaw joint was displaced, and in 80 % -in the normal Central position.

In 71.4 % of children with distal dentition, the head of the mandibular joint is shifted up and back, while only 28.6% of children had the head of the joint in the Central position. In 73.3% of children with deep bites, the lower jaw joint shifted up and down, and 26.7% did not shift. We found that in 33.3% of children with medial dentition, the head of the joint was displaced, and in 66.7% the joint was located in a normal position.

In children, occlusal violations of the dentition\_ the symmetry of the Central teeth\_ were observed in 11 children (9.6%), and infra-occlusion-in 24 children (21%).

## **CONCLUSION**

According to the above results, displacement of the mandibular joint head was observed more often in distal and deep pathological teeth, and types of pathological teeth occupied the main place in the pathogenesis of temporomandibular musculoskeletal dysfunction.

It should be noted that in the diagnosis and treatment of musculoskeletal dysfunction of the temporomandibular joint, the location of the mandibular head and the morphofunctional status of the TMJ should be considered as complex factors. If CT is performed before the treatment of abnormal bites, changes in the elements of the temporomandibular joint are taken into account. the main attention in the treatment process is paid to preventing the transition of temporomandibular joint disease to severe manifestations.

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