European Scholar Journal (ESJ)
Available Online at: https://www.scholarzest.com
Vol. 4 No.04, April 2023
ISSN: 2660-5562

MODERN DIAGNOSTIC METHODS FOR TEMPOROMANDIBULAR JOINT PAIN DYSFUNCTION SYNDROME

Madina Hikmatuloevna Marupova
Samarkand State Medical University

Article history:

Received: 11th February 2023
Accepted: 11th March 2023
Published: 22th April 2023

Abstract:

Diseases of the temporomandibular joint are difficult to diagnose and treat due to the variety of symptoms they present. The clinical picture is very complex and similar to diseases that fall under the competence of neurologists, otolaryngologists and psychiatrists. Scientists believe that TMJ dysfunction develops under the influence of many factors. The temporomandibular joint is one of the "target organs", reacting to aggression factors of different origins. They can be local and systemic. Local factors include acute and chronic trauma to the joint, absence of chewing teeth, and bruxism (teeth grinding in sleep).

Keywords: syndrome of painful TMJ dysfunction, Temporomandibular joint, increased tone

INTRODUTION: Syndrome of painful TMJ dysfunction can develop under the influence of stress, anxiety, tension and other emotional factors. Currently, there are two main theories of temporomandibular joint pain dysfunction syndrome: the occlusal imbalance theory and the psychophysiological theory. Adherents of the first theory believe that the root cause of the functional disorders is a disorder of the occlusion of the teeth. It leads to a compensatory protective muscle contraction with the development of parafunctional increased activity. This then causes a muscular pain syndrome with a temporary preservation of the correct position of the head of the lower jaw without disturbing the position of the articular disc. At the beginning of the disease there is residual tension in the muscle, and then a stable local increase in tone develops. It causes short-term painful muscle spasms during forced opening of the mouth or yawning. In other cases, increased tone leads to stable muscle tension. If the increased tone persists for a long time, vascular, metabolic, and inflammatory disorders occur in the muscle. Local hypertonuses become a source of pain and turn into trigger points, which can be found in the masseter muscles, lateral and medial wing muscles, and temporalis muscle.

With prolonged changes in the occlusal relations, the load on the joint increases by the type of compression. It begins to adapt to the new intra-articular relationships. With the depletion of compensatory capabilities, the cushioning properties of the soft tissue components of the joint are lost. Compensation of the increased load on the articular tissues is manifested by degenerative changes and adaptive changes in the elements of the joint, which leads to pain syndrome.

Temporomandibular joint pain dysfunction syndrome also develops in patients suffering from depressive disorders. Many people experience spontaneous contraction of the masticatory muscles in a state of emotional stress. They spasm, disturbance of coordination, occlusal disorders, trauma of the soft tissues of the joint occur. Disturbance of occlusion against the background of chronic stressful situations is a direct cause of joint dysfunction.

There are 2 periods in the clinical picture of the disease: dysfunction and painful spasm of masticatory muscles. At the initial stage of the disease, patients complain about the presence of joint noise, crunching and clicking in the joint. They are disturbed by pain on palpation of the masticatory muscles. The following symptoms are noted:

- deviation of the lower jaw to the side when the mouth is opened;
- S-shaped movements of the lower jaw;
- A feeling of blockage in the ear;
- Ringing and noise in the ears;
- hearing loss.

At the same time, there are no radiological changes in the joint. During the period of painful spasm, there is a sudden sharp restriction of opening of the mouth and severe muscle pain of neuralgic nature in the face and head. Some patients experience a periodic exacerbation in the early period of the disease, which is followed by a spontaneous cessation of the pain and dysfunction phenomena. The worsening of the disease often occurs when the masticatory muscles are abruptly overloaded (wide opening of the mouth, chewing hard food) or during an emotional crisis. Over time, the number of trigger points in the spastic muscles increases. They become sharply painful, and the pain begins to radiate to different areas of the head.

When examining patients with temporomandibular joint pain dysfunction syndrome, the doctor clarifies the patient's complaints, finds out whether the patient has had any acute and chronic psychogenic injuries. He finds out the presence of local triggering factors. After that, he performs external examination, palpation and auscultation of the temporomandibular joint, palpates the masticatory muscles, shoulder girdle muscles and neck muscles, defines trigger points in them.

The dentist evaluates the degree of mouth opening and the nature of lower jaw movement, bite and tooth alignment. In order to find out the cause of pain dysfunction syndrome, our doctors use the following diagnostic methods

- functional methods of examination (axiography, electromyography of masticatory muscles);
- Computer tomography;
- Magnetic resonance imaging;
- Panoramic review radiography;
- Orthopantomography.

Patients are consulted by a dental or maxillofacial surgeon, orthodontist, podiatrist, psychotherapist, neurologist, gastroenterologist, and otorhinolaryngologist. Doctors perform differential diagnosis of TMJ pain dysfunction syndrome with the following diseases:

- pathology of the temporomandibular joint - infectious, traumatic, rheumatoid, psoriatic arthritis, deforming arthrosis;
- muscle diseases - bacterial and viral myalgia;
- Facial pain due to neuralgia of branches of the trigeminal nerve, lingual and tympanic nerves, and the pterygoid node;
- migraine, temporal arteritis, as well as individualized treatment of patients with temporomandibular joint pain dysfunction syndrome. Complex cases of the disease are discussed at the meeting of the expert council with the participation of candidates and doctors of medical sciences. If necessary, patients are consulted by leading specialists from the partner clinics. We created an individual treatment regimen for patients with temporomandibular joint pain dysfunction depending on the cause and period of the disease. Central myorelaxants (sirdalud, midocalm) are prescribed to reduce the tone of the masticatory muscles, and blockades of the motor branches of the trigeminal nerve are performed using a 2% lidocaine solution. In order to improve muscle metabolism and prevent degenerative-dystrophic processes, actovegin is injected intravenously, combining injections with local application of cream or ointment.

To correct the emotional component of the pain syndrome, antidepressants, tranquilizers, anxiolytics (afobazole, cypralex, grandaxine. Amitriptyline has a pronounced anti-pain effect, pyrazidol normalizes the processes of excitation and inhibition. Fevarin has minimal side effects. The drug is prescribed even to pregnant women.

Non-steroidal anti-inflammatory drugs (voltaren, nimesil, ibuprofen, celebrex) are used to eliminate the pain syndrome. B vitamins together with nicotinic acid reduce pain and improve peripheral nerve metabolism during the acute period of the disease.

In order to normalize the occlusion, dentists perform selective grinding of teeth, eliminate defects of the tooth rows, and use occlusal splints. If necessary, surgical correction of jaw deformity is performed, and physiotherapeutic treatment of painful temporomandibular joint dysfunction syndrome is applied. It includes the following procedures:

- electrophoresis, diadinamo-electrophoresis (with hormones, anesthetics);
- laser therapy;
- magnetic therapy;
- percutaneous electroneurostimulation;
- EHF therapy.

CONCLUSIONS: Thus, acupuncture and transcranial electrostimulation are used to reduce pain syndrome. A good effect have compresses with a 2% lidocaine solution and a 25% solution of dimethoxide. Neck, shoulder girdle and masticatory muscles massage and manual therapy are also effective.

LITERATURE:

1. Azimov M. I., Shomurodov K.E. A technique for Cleft Palate Repair. Journal of research in health science. Vol. 1, No. 2, 2018, pp. 56-59.
2. Khamdamov B.Z. Indicators of immunocitocine status in purulent-necrotic lesions of the lover extremities in patients with diabetes mellitus.//American Journal of Medicine and Medical Sciences, 2020 10(7) 473-478 DOI: 10.5923/j.ajmm.2020.- 1007.08 10.
3. M. I. Kamalova, N.K.Khaidarov, Sh.E.Islamov,Pathomorphological Features of hemorrhagic brain strokes, Journal of Biomedicine and Practice 2020, Special issue, pp. 101-105
4. Kamalova Malika Ilkhomovna, Islamov Shavkat Eriyigitovich, Khaidarov Nodir Kadyrovich. Morphological Features Of Microvascular Tissue Of The Brain At Hemorrhagic Stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 2020. 2(10), 53-59
5. Khodjieva D. T., Khaydarova D. K., Khaydarov N. K. Complex evaluation of clinical and instrumental data for justification of optive treatment activites in patients with resistant forms of epilepsy. American Journal of Research. USA. № 11-12, 2018. C.186-193.
6. Khodjieva D. T., Khaydarova D. K. Clinical and neuroph clinical and neurophysiological ch ogical characteristics of teristics of post-insular cognitive disorders and issues of therapy optimization. Central Asian Journal of Pediatrics. Dec.2019. P 82-86
7. Sadriddin Sayfullaevich Pulatov. (2022). Efficacy of ipidacrine in the recovery period of ischaemic stroke. World Bulletin of Public Health, 7, 28-32.

8. Tukhtarov B.E., Comparative assessment of the biological value of average daily diets in professional athletes of Uzbekistan. Gig. Sanit., 2010, 2, 65–67.
9. Khaidarov Nodir Kadyrovich, Shomurodov Kahramon Erkinovich, &Kamalova Malika Ilhomovna. (2021). Microscopic Examination OfPostcapillary Cerebral Venues In Hemorrhagic Stroke. The American Journal of Medical Sciences and Pharmaceutical Research, 3(08), 69–73.