

## Method of Prosthetics in the case When Special Examination and Determined Data are based on Painful Pathologies in the Event of a Violation of the Function of the Temporomandibular Joint Jaw Caused by a Defect of the Tooth Row

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**Abstract:** Helps to assess the condition of the muscles using an electromyograph apparatus. In this case, the average amplitude of the bioelectric potentials of the chewing muscles made it possible to determine the data during chewing of nuts, the maximum muscle bioelectric potential of the average amplitude during chewing, the rest time of the muscles of the average amplitude.

**The aim of the study** was to increase the effectiveness of diagnosis and treatment of patients with temporomandibular joint pathology, associated with dental row defects pathologies.

**The object of the study** was 146 patients who applied to the Educational, Scientific and Practical Center of Dentistry of the Bukhara State Medical Institute and the Children's Dental Polyclinic of the Bukhara region with defects of teeth and dentition.

USB interface connected to a PC via electromyography and takes power from it (does not require a 220V network). This allows the device to be used in conjunction with a laptop (from which the entire system is powered). Interaction with an electromyograph is carried out using software. The record is detected in monitor mode using two or four standard lines. At the time of the lower jaw, and in a calm state, it is possible to see the change in indicators, the amplitude scale, the lower and filter indicators from the higher frequency and the EMG will analyze the subsequent mathematical indicators. For registration was carried out with leather electrodes. The maximum compression of the teeth was recorded for 5 seconds. Functional chewing tests (chewing 0.8 g of dried almonds for 15 seconds), biopotentials of chewing muscles during function were noted.

**The results** of the electromyography study, conducted among those participating in a study that identified temporomandibular joint activity disorder syndrome, showed an increase in the bioelectric activity (BEA) of the chewing muscles (TBE) in AG - 1, AG - 2 and AG - 3 in a calm state; a decrease in maximum when pinched and chewing time.

In all AG-1, 2, 3 patients, in the "mouth closed" position, expansion was observed in Section D4 of the damaged joint according to the results of spiral computed tomography in the curved projection, while the opposite position was observed in sections D2 and D5 of the joint, and narrowing of the joint in these sections was found. On the healthy side, there was an expansion of the D2 and D5 sections of the joint. Based on lower jaw open case SKT results, CHPJB OAS is present in 20 patients (51.28%) of the AG - 1 Group, 12 patients (42.85%) of the AG - 2 group with NMS

presence, 9 patients (52.94%) of the AG - 3 group with bdch presence have Oas – 18 (46.15%), NMS – 13 (46.42%) and BDCH – 8 (47.05%) settled on the ORT slope of the joint tumor in patients [2.4.6.8.10.12.14.16.18]. In the "closed mouth" case, the results of the study of spiral computed tomography revealed narrowing of the joint in sections D3, D5 on the damaged side, expansion in Section D4, expansion in sections D3 and D5 on the healthy side, narrowing in Section D4. When a study was conducted in the "mouth open" position, the temporomandibular joint joint heads were measured to be, respectively. 37 (94.87%), 28 (100%) and 17 (100%) patients had temporomandibular joint pathology located on the posterior slope of the articular head on the existing side and at the tip of the articular head on the other side.

For example, an extract from the patient's medical card № 23, X.K., At the base of the 28 – year-old clinic, an orthopedic dentist was contacted by temporomandibular joint during chewing with complaints of pain and chills on the right side, restriction of the opening of the mouth (up to 2.8 cm); when chewing and yawning, an exacerbating pain character was observed on the left side-slow-moving, sudden, step-strengthening and irritating pain to neighboring areas. In addition, there is a pathology of temporomandibular joint it is said that there is a foreign body inside the joint, the jaw is limited. The first clinical signs in chpjb appeared 4 months ago, not treated before with this pathology. The survey found that the patient has performed right-handedly in the course of nutrition in recent years.

Early contacts in occlusiography were most often found in central occlusion-with 14, 16 - 45, 47, 26, 27 – 37, 38 teeth in all patients in the temporomandibular joint AG – 1, 2 and 3 and control groups who participated in the examination.

Temporomandibular joint spiral in curved projection in computed tomography reformations narrowing of the joint on the right side D1 section 1,8 mm.ni if established, this indicator is 1.3 in Section D2 mm.ni, while Section D3 has 1.7 mm.ni organized. At the time of maximum opening of P/j, the distance of the joint head to the tip of the joint recess was 7.2 mm. Narrowing of the articular cleft on the left D1 section 1,2 mm.ni if established, D2 section 1,2 mm.ni organized. The highest narrowing of the left lateral articular fissure was observed in Section D3, at 1.3 mm. At the time of maximum opening of lower jaw, the distance of the joint head to the tip of the joint recess was 2.1 mm.

Thus, temporomandibular joint BFBS Oas, NMS and BDCH were found to occur to one degree or another of similar complaints when clinical observations of existing patients were analyzed. Of the most identifiable complaints are heaviness and pain in the joint area, crunching, noise heard during the movement process, and chewy muscle fatigue during the lower jaw mechanical movement.

In all patients in groups AG - 1, 2, 3 in a "closed mouth" position, in a curved projection, according to the results of spiral computed tomography, an expansion of the joint crack in Section D4 on the damaged side, in sections D2 and D5 – narrowing was found, at this time on the healthy side – in sections D2 and D5. When the "open mouth" condition was studied the joint head was found in 20 AG-1 patients (51.28%), 12 AG-2 patients (42.85%), AG-3 in 9 patients (52.94%) in three parts, respectively 18 (46,15%); 13 (46,42%) and in 8 (47.05%) patients settled on the ort slope of the cervical vertebra [1.3.5.7.9.11.13.15.17].

At the time of examination, in a curved projection, a spiral computed tomography of the temporomandibular joint was performed on all patients of the main group - 1, 2 and 3 in cases of "closed mouth" and "open mouth". In the case of "closed mouth", a study of spiral computed tomography data found that on the damaged side the distance of the articular head to the articular notch in sections D3, D5 was reduced, while on Section D4 this distance was increased. Conversely on the undamaged side it was found that the distance of the mandible head to the mandible was increased in sections-D3 and D5, while on Section D4 this distance was reduced. In the case of "open mouth", the presence of pathology of the temporomandibular joint head with a spiral CT scan of the temporomandibular joint in a curved projection was observed in 37 (94.87%) of patients with Oas, 28 (100%) of patients with NMS, and 17 (100%) of patients with bdch.

Thus, temporomandibular joint BFBS Oas, NMS and BDCH were found to occur to one degree or another of similar complaints when clinical observations of existing patients were analyzed. Of the most identifiable complaints are heaviness and pain in the joint area, crunching, noise heard during the movement process, and chewy muscle fatigue during the lower jaw mechanical movement. A study of the history of Diseases revealed the presence of a one-sided chewing gum, the application of protruding fillings, which disrupts the normal ciplsability of the teeth. This resulted in a reduction in the distance of the lower jaw opening developed, a deviation from the central axis during the jaw movement and defects in the tooth rows caused by disturbances in the temporomandibular joint function.

**Conclusions.** The proposed examination card and database temporomandibular joint allows you to make a complete clinical picture of all nosological forms of painful activity disorder syndrome – occlusive articulation syndrome, neuromuscular syndrome and joint disc protrusion, and then give a reason to systematize and document the data obtained for processing purposes electronically.

When patients with temporomandibular joint were examined, 100% of the symptoms found in the case were identified, which form the basis for a detailed developed schedule of the comparative diagnosis of occlusive Oas, NMS and BDCH. With Special Research Methods, a relationship has been established between the amplitude of the movements of the lower jaw, changes in calm bioelectric activity in the chewing muscles and the formation of OAS, NMS and BDCH diseases.

## References

1. Гаффоров С.А., Астанов О.М. Методы диагностики и лечения больных с дисфункцией ВНЧС // *Stomatologiya*. Ташкент – 2020. – №.4 (81). – С.52-55. (14.00.00, №12)
2. Гаффоров С.А., Астанов О.М. Дифференциальная диагностика больных с синдромами болевой дисфункции височно-нижне челюстного сустава // *Тиббиётда янги кун*. – Ташкент 2020. – №.3 (31). – С.289-295. (14.00.00, №22)
3. Gafforov S.A., Astanov O.M. Clinical features of diagnostics and their defenses in patients with dysfunction of the high-mandibular joint without pathology, inflammatory-dystrophic origin // *Middle European Scientific Bulletin*. – 2020. Issue 4. P. 14-20. (Impact factor = 7,525)
4. Astanov O.M., Gaffarov S.A. Chak-statistical analysis of dental examinations of activity disorders in the lower jaw // *World Bulletin of Social Sciences*. – 2021. Vol. 3. P. 129-132. (Impact factor = 7,545)
5. Gafforov S.A. Astanov O.M. Differential diagnosis of patients with temporomandibular joint pain dysfunction syndromes // *International Journal on Integrated Education*. 2021. – Vol. 9, Issue 3. P. 229-234. (Impact factor = 7,242)
6. Astanov O. M., Gafforov S. A. Diagnosis and Treatment of Patients with Maxillary-Mandibular Joint Dysfunction without Pathology of Inflammatory-Dystrophic Origin // *Annals of the Romanian Society for Cell Biology*. 2021. – Vol. 25, Issue 1, 2021, P. 5721-5737. (Scopus Q2)
7. Гаффоров С.А., Астанов О.М., Абдухаликов С.Ф. Чакка пастки жағ бұғими фаолияти патологияларида ташхис кўйиш алгоритми ва даволаш усуллари такомиллаштириш // *Тошкент тиббиёт академияси ахборотномаси* – 2021. – №7. – С.68-77. (14.00.00, № 13)
8. Gaffarov S.A., Astanov O.M. Diagnosis of patients with temporomandibular joint pain dysfunction syndromes // “*International CONGRESS ON MODERN EDUCATION AND UNTEGRATION*” – 2020. Vol.5, P.137-139.
9. Astanov O.M. TMJ dysfunction a fairly common pathology // *Actual problems of children’s dentistry scientific practical conference. International Engineering Journal For Research & Development*. India 2020. P.8-9.
10. Гаффоров С.А., Идиев Г.Э., Астанов О.М. Междисциплинарный подход к лечению пациентов с синдромом болевой дисфункции височно-нижнечелюстного сустава // *Universum: Медицина и фармакология*. – 2021. – №. 11 (82). – С.10-18.

11. Astanov O.M. The morphological structure and biomechanics of the temporomandibular system // NOVATEUR PUBLICATIONS Journal NX- A Multidisciplinary Peer Reviewed Journal. – 2021. 4230 VOL. 7, P. 184-187.
12. Gafforov S.A., Astanov O.M., Idiev G.E., Chin-The Algorithm of Diagnosis in Pathologies of Lower Jaw Activity and the Effectiveness of Komplex Treatment Methods // Middle european scientific bulletin. – 2021. Vol.16, P.106-118.
13. Астанов О.М. Диагностики и лечения больных с дисфункции височно-нижнечелюстного сустава без патологии воспалительно- дистрофические происхождения // “ACTUAL PROBLEM SPEDIATRIC DENTISTRY” – Бухара. 2021. P. 17-20
14. Астанов О.М. Дисфункции височно-нижнечелюстного сустава без патологии воспалительно-дистрофические происхождения // Научно-практической конференции «Актуальные проблемы стоматологии» Фергана 9 – 2021 г. С.21-22.
15. Astanov O.M. Morphological structure and biomechanics of the temporomandibular system // International conference on Agriculture Sciences, Environment, Urban and Rural Development. 28 December 2021. P.62-63
16. Астанов О.М. Тиш қаторлари нуқсони билан боғлиқ чакка пастки жағ бўғими оғриқли синдромини даволашни такомиллаштириш // Журнал стоматологии и краниофациальных исследований. – 2022. – №1(03). – С.60-64.
17. Астанов О.М. Чакка – пастки жағ бўғими фаолияти бузилишидаги оғриқли симптомларини комплекс даволаш усуллари // Методические рекомендации. – Бухара, 2021. 16 б.
18. Астанов О.М. Тиш қатори ва чайнов юзаси нуқсонлари асоратидан шакланган чакка – пастки жағ бўғими фаолиятидаги оғриқли синдромларга ташхис қўйишни мукамаллаштириш // Методические рекомендации. – Бухара, 2021. 18 б.