



Scientific Journal of Research in Dentistry

Letter to Editor

Psychopharmacocorrection in the Complex Treatment of Patients with the Painful Dysfunction Syndrome of the Temporomandibular Joint - Ⓜ

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Submitted: 21 March 2018; **Approved:** 21 June 2018; **Published:** 23 June 2018

Cite this article: Karelina AN, Stepanov SV, Stepanova MS. Psychopharmacocorrection in the Complex Treatment of Patients with the Painful Dysfunction Syndrome of the Temporomandibular Joint. Sci J Res Dentistry. 2018;2(1): 012-014.

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INTRODUCTION

Dysfunction of the Temporomandibular Joint (TMJ) is one of the topical problems in Dentistry. On this pathology is reported in 14-20% of children, adolescents and 40-85% of adult population [1-4].

The syndrome of painful dysfunction of the TMJ is a polyetiologic disease, and the role of individual factors in the development and maintaining of this pathological condition is not clear enough understood. The focus is on the occlusal-articulatory [5,6] and myogenic [7,8] of the etiological concept. In recent years, the dominant influence of psychosocial factors on the development of the syndrome of painful dysfunction of the TMJ [7,9-14].

So, the problem of diagnosis and treatment of patients with the TMJ pain syndrome is controversial, there is no methodological approach and continuity between physicians of different specialties, which makes it difficult to treat patients. The aim of the study was to increase the efficiency of diagnostics and treatment of the TMJ pain syndrome that based on clinica-functional analysis of the dentoalveolar system and psychological examination of patients.

MATERIALS AND METHODS

We conducted a study at the base of the SSMU. The main study group consisted of 70 patients with the TMJ pain syndrome. They were divided into 2 subgroups of 35 individual each depending on the mode treatment. The aim of the study the first subgroup received stage-by-stage dental treatment (at the first stage - the manufacture of the splint therapy, on the second stage - normalization of occlusal-articulatory disorders using therapeutic, orthopaedic methods or their complex), supplemented by a differentiated psychopharmacocorrection, patients of the second subgroup received only dental treatment in view of the refusal of psychopharmacocorrection. Psychopharmacocorrection included prescription of antidepressants of different mechanism of action and psychological methods. The control group consisted of 20 people with no signs of a pathology of the TMJ and instructions to it in the anamnesis.

All patients had examination, which included clinical examination, study of control and diagnostic models of jaws in a fully regulated articulator, tuned to an individual function according to electronic axiography, cone-beam computed tomography of the TMJ with calculation and analysis of the main linear and angular parameters, electroneuromyography of masticatory muscles, evaluation of the severity of pain by 10-score VAS, cardiointervalography. To identify changes in the psychoemotional sphere, the characterological features of the personality of the patients were determined according to the test of K. Leonhard and G. Shmishek, depressive disorders according to the Beck scale.

After preliminary psychological testing, patients were advised to have a consultation of a psychotherapist with the patient's consent to this type of care. Patients of the 1st subgroup were differentially assigned antidepressants of different directions depending on the prevailing symptoms of depression, as well as methods of psychocorrection - the method of autogenic training according to Schultz, method of submodeling reformation of the image of pain and visually-kinesthetic modeling. Methods of psychopharmacocorrection preceded dental treatment and accompanied each of its stages.

Statistical significance of differences between qualitative variables was assessed using Fisher's exact test or to calculate 95% confidence

intervals for the odds ratios and the use of asymptotic criteria (Chi-square or Pearson's, Chi-square test of validity). For comparison of mean values in two groups were used heteroscedastic version of the Student's criterion (the criterion of Satterthwaite).

This study has been approved by the Ethics Committee at Smolensk state medical university, protocol № 12 from 26.04.2014.

RESULTS

Psychoemotional status of patients with the syndrome of painful dysfunction of the TMJ was manifested by as pronounced accentuations, as well as depressive disorders. The number of accentuated persons according (character questionnaire of K. Leonhard and G. Shmishek) in the group of patients with the TBA of the TMJ was significantly higher (81.4%) (the differences are statistically significant ($p = 0.046$, the Welch test)), than in the control group. At the same time accentuations at the level of 18 or higher points were noted on the scale of cyclothymia in 87.1% of cases, on the scale of dysthymia in 42.9% of cases, while the individuals of the comparison group did not demonstrate pronounced accentuations on these scales. Signs of depression on the Beck scale were noted in 64.3% of cases, the average score was 14.21 ± 0.361 points which indicated mild depression level. The data indicated a patient's predisposition to depressive states and required a psychopharmacological correction, which must be taken into account when planning a complex therapy regimen.

In complex therapy of patients of the 1st subgroup after 6 months from the beginning of treatment, complete relief of symptoms of depression was observed (mean score on the Beck scale is 2.11 ± 0.168) and the transition of pronounced accentuations along the characteristic scales of cyclothymicity and dysthymia in accentuations (mean scores were 14.49 ± 0.313 points and 12.94 ± 0.574 points, respectively), which is a positive effect of psychopharmacocorrection. In patients of the 2 subgroups who did not receive psychopharmacocorrection, the levels of accentuations and depression in the Beck correspond to the initial indices.

In backdrop of positive dynamics in the psychoemotional status in patients of subgroup 1 there is a positive dynamics in the clinical symptomatology, which is confirmed by the results of additional research methods. There is a gradual increase in the amplitude of the bioelectric signal of both chewing and temporal muscles: after 6 months of complex therapy, the average amplitude of the bioelectric signal of the temporal and proper chewing muscles approached the similar parameters of the control group. Also in the patients of the 1st subgroup, the symmetry indexes of the distribution of the bioelectrical activity of the temporal and proper chewing muscles, as well as the ILMJ index, are normalized, which confirms the improvement of the functional state of the chewing muscles. In the patients of the 2nd subgroup, who refused psychopharmacocorrection, the average amplitudes remain lower compared to those of the 1st subgroup and the control group, the positive dynamics of the analyzed indices is noted, however, there is an imbalance in the functioning of the masticatory muscles. In patients who received psychopharmacocorrection along with dental treatment, there was a more rapid and complete relief of the pain syndrome. By the end of treatment, the average score for a 10-point VAS was 0.142 points, TI 93 sets. Units, which corresponded to the norm. The patients of the 2 subgroup had a low positive dynamics, but the results indicate the pain syndrome persistence. Pronounced accentuations of character and depressive disorders in the majority of patients with the syndrome of painful dysfunction of the

TMJ confirms the role of psychoemotional stress in the development and maintenance of the syndrome of painful dysfunction of the TMJ. High frequency of occurrence of the psychoemotional status in this category of patients, the counselling of the psychotherapist is an integral part of the diagnostic algorithm for the painful dysfunction syndrome of the temporomandibular joint. Inclusion in the scheme of complex therapy of patients with painful dysfunction syndrome of TMJ methods of differentiated psychocorrection increases the effectiveness of treatment of patients, shortens its terms and reduces the frequency of relapses.

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