

Oral Manifestation Related to Fibromyalgia

Manifestações Bucais Relacionadas à Fibromialgia

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Abstract

Fibromyalgia Syndrome (FM) is a condition characterized by generalized and chronic muscle pain, with no evidence of inflammation and accompanied by other symptoms such as tiredness, anxiety and depression. However, little is discussed about the oral manifestations associated with this syndrome. The present study aimed to analyze the oral changes found in patients diagnosed with FM and to relate them to the disease. The sample consisted of 67 participants diagnosed with fibromyalgia and who agreed to participate in the research by signing the informed consent form. Patients were assessed through examination and a questionnaire interview. The results obtained showed that the drugs most used by the participants were antidepressants, analgesic medications and anticonvulsants, 58.2% of the participants rated their own oral hygiene as good, 70.1% of the participants said they made regular visits to the dentist, 92.4% reinforced that pain makes it impossible to perform daily tasks, but only 47.0% believed that pain interferes with the quality of oral hygiene, 55.2% of the participants stated they had restorations or caries, 34.3% had no dental units, 20.9% have some type of prosthesis, 74.2% reported xerostomia. It is concluded that patients with FM have a high prevalence of xerostomia and that there is a strong lack of information on the risk factors correlated with FM, as well as on the oral manifestations caused by the syndrome, strengthening the need for the patient's monitoring and guidance of dental surgeon in conjunction with a multidisciplinary team.

Keywords: Fibromyalgia Disease. Oral Health. Generalized and Chronic Pain.

Resumo

A Síndrome de Fibromialgia (FM) é uma condição caracterizada por dor muscular generalizada e crônica, sem evidência de inflamação e acompanhada de outros sintomas como cansaço, ansiedade e depressão. Entretanto, pouco se discute sobre as manifestações bucais associadas a esta síndrome, diante disto, o presente estudo objetivou analisar as alterações bucais encontradas em pacientes com o diagnóstico de FM e relacioná-las à doença. A amostra foi constituída de 67 participantes com diagnóstico de fibromialgia e que aceitaram participar da pesquisa mediante a assinatura do termo de consentimento livre esclarecido. Os pacientes foram submetidos a um exame clínico e a uma entrevista por questionário. Os resultados obtidos mostraram que os fármacos mais utilizados pelos participantes foram antidepressivos, medicamentos para analgesia e anticonvulsivantes, 58,2% dos participantes avaliaram sua própria higiene oral como boa, 70,1% dos participantes afirmaram fazer visitas regulares ao dentista, 92,4% reforçaram que as dores impossibilitam de realizar tarefas cotidianas, mas somente 47,0% acreditam que as dores interferem na qualidade da higiene oral, 55,2% dos participantes afirmou possuir restaurações ou cárie, 34,3% possuir ausência de elementos dentais, 20,9% possuir algum tipo de prótese, 74,2% relatou xerostomia. Conclui-se que pacientes com FM possuem alta prevalência de xerostomia e que há uma forte falta de informação sobre os fatores de risco correlacionados à FM, bem como sobre as manifestações bucais provocadas pela síndrome, fortalecendo a necessidade do acompanhamento e da orientação do cirurgião-dentista em conjunto com a equipe multiprofissional.

Palavras-chave: Doença de Fibromialgia. Saúde Bucal. Dor Generalizada e Crônica.

1 Introduction

Fibromyalgia Syndrome (FM) is a condition characterized by generalized and chronic pain. There is still no definite cause, but it is known that patients with FM have more pain sensitivity than patients without the syndrome. FM may be accompanied by other symptoms such as fatigue, depression and sleep problems, however, little discussion is made about the oral manifestations associated with this syndrome¹.

Among the main oral manifestations of FM, it is possible to mention xerostomia, temporomandibular dysfunctions, dysgeusia, glossodynia and dysphagia^{2,3}.

FM treatment is intended to relieve symptoms and produce an improvement in quality of life. Drug treatment consists mainly of antidepressants such as duloxetine and fluoxetine, anticonvulsants such as Pregabalin and muscle relaxants^{4,5}. However, non-medicated therapeutic proposals consist mainly of psychological support and physical exercises, such as stretching and aerobic conditioning⁶.

According to data from the Brazilian Society of Rheumatology⁵ in 2019, about 2.5% of the world population was affected by FM, among them most women aged between 30 and 50 years.

The efficacy of treatment is based not only on the patient, but also on the family and health team, which should have a multidisciplinary look⁷. The delay in diagnosis and the manifestation of signs and symptoms may make the day-to-day difficult for patients and impair their quality of life⁸. Therefore, the objective of this study is to analyze the oral alterations found in patients with the diagnosis of Fibromyalgia Syndrome (FM) and to relate them to the disease.

2 Material and Methods

This is a descriptive and exploratory study. The population consisted of participants in the Program of Interdisciplinary assistance to women with fibromyalgia syndrome of Universidade do Vale do Itajaí, constituting a sample of 67 patients. This research was approved by the Ethics and Research Committee under legal opinion number 3.650.189. The inclusion criteria were: age greater than or equal to 18 years, having a diagnosis of fibromyalgia by a rheumatoid doctor and after diagnosis of exclusion from other rheumatic diseases and accepting to participate in the research by signing the informed consent form. Patients who did not fit the stipulated age group and who did not want to continue the research were excluded.

The patients were submitted to clinical examination and interview by questionnaire. The evaluation of the CPO-D index (epidemiological indicator used to measure and compare the experience of dental caries in populations, and its value expresses the average of decayed, lost and obturated teeth in a group of individuals) was performed by the two research students, previously calibrated and under the supervision of the counselor professor, assigning the values recommended by the Ministry of Health⁹. A clinical oral examination was also performed to evaluate soft tissues, non-stimulated sialometry and milking of glands to evaluate the amount and quality of saliva.

Non-stimulated sialometry was based on saliva collection in a medicine cup for five minutes and the reference values were the same as those mentioned by Falcão et al. (2013) in their study (very low ≤ 0.1 ml/min, low values between 0.1 and 0.25 ml/min, normal ≥ 0.25 ml/min)¹⁰.

The questionnaire dealt with personal information, FM history, oral hygiene habits, oral symptoms, self-perception about oral health condition and the influence of FM on the routine. Data analysis was descriptive and performed by parametric tests.

3 Results and Discussion

The sample consisted of 67 participants, of which only one subject was male. The results show that the majority of participants are in the age group between 31 and 40 years, followed by the interval between 51 and 60 years. Regarding the FM diagnostic time, all 67 individuals have the current diagnosis for less than 30 years, among them, 54 have had for

less than 10 years. The onset of FM symptoms was reported by 57 patients also less than 30 years, of which 31 observed symptoms less than 10 years ago.

Among the participants of the research, 58.2% evaluate their own oral hygiene as good, as well as 68.7% report using dental floss every day and 36.4% use complementary mouthwash to brushing. It was also observed that 70.1% of the participants stated that they had regular visits to the dentist, while 71.0% reported their last visit to the dentist less than a year ago.

When asked about the frequency of pain crises, 41.7% (28) of the respondents answered that they feel pain "daily" and "all the time". More than 90% reinforce that pain makes it impossible to perform daily tasks, but only 47.0% believe that pain interferes with the quality of oral hygiene. Associated with this, when asked that the participants attribute a score from a zero to ten scale to the impact that the Fibromyalgia Syndrome influenced on oral health (in which zero means no impact and ten means it has a full impact), 29 patients attributed score lower than or equal to five, while 32 associated with higher scores.

Only 10 participants did not use medications for FM treatment, data analysis showed that the medications most used by the participants were antidepressants (36.4%), followed by drugs for analgesia (analgesics, anti-inflammatory and muscle relaxants) in 20.6% of the patients and anticonvulsants in 17.8% of the patients.

Regarding complementary non-medicated treatments for FM, most stated that they did not perform any other treatment (33.3%), 22.6% practice physical exercises, 8.3% physiotherapy, 7.1% acupuncture and only 6.0% follow up with psychologist.

Regarding the oral manifestations, through the data obtained from the questionnaires, 55.2% of the participants stated that they had restorations or presence of caries, 34.3% had no dental units, while 20.9% had some type of prosthesis. No soft tissue changes have been reported. Regarding xerostomia, 74.2% of the participants reported feeling the mouth dry, while 25.8% did not notice symptoms.

According to the Brazilian Society of Rheumatology⁵, Fibromyalgia Syndrome (FM) is a condition characterized by generalized and chronic muscle pain, but it does not present evidence of inflammation and is usually accompanied by other symptoms such as fatigue, anxiety and depression.

Only one participant was male, the other 66 were women, which represents a prevalence of 98.5% of the female sex, similar results to those of Ferré-Corominas et al.³ and Cavalcante et al.¹¹.

While the results of Ferré-Corominas et al.³, Muñoz et al.⁸ and Cavalcante et al.¹¹ showed age ranges above 35 years, the present study found an age range between 21 and 61 years, with a mean age of 42.58 years, similar to the mean found by Leitão et al.¹²

Chark and Xavier⁴ concluded through a literature review that the main drugs studied and available in Brazil for FM treatment were antidepressants, anticonvulsants, analgesics and muscle relaxants. Accordingly, data analysis demonstrated that the drugs most used by the participants are antidepressants, followed by drugs for analgesia (analgesics, anti-inflammatory drugs and muscle relaxants) and anticonvulsants. Among the most commonly mentioned drugs were duloxetine, gabapentin and tramadol.

The use of medicines to control pain and FM symptoms is quite common, and most of the times necessary, but, according to the Brazilian Society of Rheumatology⁵, the main treatment is non-medicamentous, through physical exercises and psychological therapy.

De Stefano¹ verified through his study that emotional symptoms such as anxiety and depression are commonly associated with the syndrome and that can impact the quality of life of individuals, reinforcing that the involvement of psychology in FM treatment is indispensable since psychological aspects are directly related to the individual's illness process.

As completed by Altan et al.⁶, both aerobic activities and exercises of localized muscle resistance have already demonstrated beneficial effects on fibromyalgia, in terms of pain control and depression, as well as improvement of quality of life. In this sense, data analysis results become worrying, since 33.3% of the respondents do not perform any type of non-medicamentous treatment, while 22.6% practice physical exercises and only 6.0% perform psychological follow-up.

Xerostomia, which is the subjective sensation of dry mouth, was reported by 74.2% of the participants in this research, results corroborated by Rhodus et al.² in which xerostomia was verified in 70.9% of the cases and higher than those of Schenone et al.¹³ with 51.0% of cases.

As presented by Silva¹⁴, saliva has several functions, having the ability to humidify and protect the tissues of the oral cavity and gastrointestinal epithelium, in addition to the ability to lubricate that helps in phonetics, swallowing, in the bolus formation, in the prostheses retention and prevents damage to the oral tissue caused by microorganisms and mechanical injuries. Therefore, xerostomia can cause great damage to health, such as the presence of mucosal infections and discomfort when speaking and swallowing.

De tefano¹, in his research, showed that individuals with a history of caries had a lower salivary flow, the explanation for this may be present in salivary proteins that establish balance of oral microflora, thus xerostomia may be associated with greater susceptibility to caries disease, periodontal diseases and halitosis.

One of the causal factors of xerostomia, according to Goulart et al.¹⁵ is the consumption of xerostomia and anorexigenic drugs, such as antidepressants and antiepileptic drugs. In the present study, 54,2% of the respondents used antidepressants and/or anticonvulsants, which suggests

a strong relation with the incidence of xerostomia in this population, but it cannot be related as a single causal factor.

The treatment of xerostomia is directly related to the cause of the xerostomia, however, the clinician may use mechanisms to soften the xerostomia condition according to its intensity and improve the quality of life of his or her patients. When salivary flow is reduced, oral hydration can be stimulated with the use of sugar-free chewing tablets, vitamin C tablets, or use of drugs such as Pilocarpine, Bethanechol, Carbachol and Cevimeline. On the other hand, when the salivary function is low or zero, it should be replaced by artificial saliva or physiological saline solution¹⁵.

Regarding the pain crises, 43.7% of the respondents responded that they feel pain "daily" and "all the time", more than 90% reinforce that pain makes it impossible to perform daily tasks, but only 47.0% believe that pain interferes with the quality of oral hygiene. In the results of this study, it was observed that 47.5% of the individuals attributed scores inferior or equal to 5 (within a scale from zero to ten) for the impact of FM on their oral health, in contrast, when the alterations in the oral cavity reported were observed, 55.2% presented restorations and/or caries, 34.3% have no dental units, 20,9% use some kind of prosthesis, 74.2% reported xerostomia symptoms and 5 others reported having developed bruxism, only 17.9% did not report changes regarding cavities, restorations, prostheses and absences of dental units.

In the research of Moraes et al.¹⁶ of the 17 patients diagnosed with FM who comprised the sample, 88.23% had improvement in painful symptoms only with TMD treatment, seeking rebalancing of the stomatognathic system, the authors also stated that patients with FM and TMD present several common symptoms, suggesting a strong relation between the diagnoses. In the present study, although 70.1% of the participants stated that regular visits to the dental-surgeon, the data demonstrate that there is a great lack of information about oral health, risk factors for TMD and xerostomia, in addition to the lack of self-knowledge of the oral cavity and its aspects of normality.

Thus, the dental care of the patient with FM should be based on a thorough anamnesis, to obtain information about the use of drugs, presence of pain in the orofacial region, symptomatology of xerostomia, knowledge and difficulty performing oral hygiene. It is worth pointing out that in addition to rehabilitation treatment, the dental-surgeon has the responsibility to educate and guide such patients on the risk factors of the syndrome and on the need for follow-up and prevention, making use, if necessary, of fluoride therapy and artificial saliva.

Negligence on the possible oral manifestations of FM and on the quality of oral health of patients with the Syndrome reinforces the need for follow-up of dental-surgeons in conjunction with care team for these patients.

Nunes et al.¹⁷ report that oral alterations present in patients with special needs can be avoided or minimized, as well as

people with disabilities should be guided in the various preventive treatments for oral health.

As Ferré-Corominas, Chimenos-Küster and López-López³ concluded, dental care is essential during treatment, emphasizing the relief aspects of xerostomia and glossodynia, as well as possible treatments of temporomandibular joints.

4 Conclusion

The reported hygiene habits were considered good in 58.2% of the cases. The drugs most frequently used by the patients were antidepressants, drugs for analgesia and anticonvulsants. Patients with FM have a high prevalence of xerostomia and this may be associated with the drugs used in the treatment, but cannot be considered as their only causal factor.

Almost half of the participants believe that FM has no impact on their oral health, while only 12 of the 67 participants did not report alterations related to the presence of restorations, caries, prostheses, endodontic treatments and absence of dental units. In view of the above, it can be observed that FM is strongly related to xerostomia (main oral alteration observed in the participants) and may also be associated with the development of temporomandibular disorders and orofacial pain.

It was found that patients with FM lack information about the risk factors for oral health correlated with the syndrome, strengthening the need for follow-up and guidance of the dental surgeon and the oral health team in conjunction with the multidisciplinary treatment team for these patients. Therefore, more research is suggested.

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