THE ORAL HEALTH CARE IN PATIENT WITH SCHIZOPHRENIA

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ABSTRACT

People with mental disorders and especially those with schizophrenia often cannot perform day to day activities due to worsening of self-care ability, lack of desire for oral health care as well as generally poor awareness of oral health issues in these patients. Also, they associated a lot of side effects of medications and by consequence, all of these may complicate dental management in schizophrenic patients. We realized a study with 50 outpatients diagnosed with schizophrenia. The objectives of this study were to evaluate the oral health of a group of schizophrenic outpatients and to assess the influence of symptomatology on oral health using the DMF-T Index (sum of decayed, missing and filled teeth). Even the results are limited by the small number of participants, we wanted to draw attention to the fact that patients with schizophrenia have important problems related to oral health and there is a very large discrepancy compared to the general population, in terms of frequency and nature of oral care.

KEYWORDS: Schizophrenia, dental care, oral diseases

INTRODUCTION

Schizophrenia is a chronic mental disorder that affects the process of thinking, the perception and emotions and is often manifested with auditory hallucinations, delusions, disorganized speech or abnormal behavior. It affects approximately 20 million people worldwide. (1) It is a well-known fact that schizophrenia causes disability and it may cause significant social and occupational dysfunction. It interferes with everyday tasks such as maintaining good oral hygiene, and the suspiciousness that is often present at this category of patients makes them reluctant to go to the dentist. Along with the sedentary lifestyle, the smoking and the side effects of the antipsychotic medications, mainly xerostomia, lead to various health problems, including dental diseases. (2) In recent years, it has been observed that in America, health care costs for patients with schizophrenia have increased from 62.7 billion dollars in 2002 to 155.7 billion dollars in 2012. The prevalence of schizophrenia in the general population is 1 to 1.5% and is 1.4 times more common in men than in women and leads to a shortening of life expectancy by eight years among men compared to the general population. In addition, the ensuring of adequate oral hygiene by these patients is influenced by the social, cognitive, motor and behavioral consequences of this severe mental disorder. Therefore, a therapeutic team involving the dentist is necessary to achieve an appropriate, individualized therapeutic plan that considers the optimization of the health of these patients. (3,4)
Recent studies show an increase in the prevalence of caries and periodontal disease in patients with mental disorders compared to the general population and its main causes are reduced ability to perform adequate toothbrushing, the side effects of psychotropic medication in the oral sphere, limited access to the dental office and the reduced abilities of dentists to manage this category of patients. (5,6) In addition, the risk is increased in patients hospitalized for long periods of time or in those with negative symptoms. Also, the associated cognitive impairments reduce the ability of these patients to ensure adequate oral hygiene and even to recognize the severity of oral problems. Psychotropic medication could have as a side effect xerostomia that causes periodontal disease and tooth destruction. On the other hand, patients avoid regular visits to the doctor and neglect their oral hygiene.(7)

Collaboration with these patients is difficult and many of them have financial problems, which restrict them from taking proper care of oral hygiene. Thus, some studies indicate that patients with schizophrenia have not been to a dental consultation for over a year, the main reason being the fear of dental interventions (8,9). Patients with schizophrenia cannot ensure proper oral hygiene and do not use the indicated toothbrushing techniques.

MATERIAL AND METHODS

We realized a study that includes 50 participants with the diagnosis of schizophrenia and we examined their oral health status, to identify the factors that interfere with the medical act in the dentistry field, at this group. The aim was to observe the impact of the symptoms on oral health, to understand and adjust to their necessities, so the patients with schizophrenia can have a better access to the dental care. The DMF index has been used to assess the presence of cavities. This index is used for people with permanent dentition and expresses the total number of decayed, missing or filled teeth or dental surfaces. When applied to the teeth, the value of this score is between 0 and 28, maximum 32 if the third molar is included. If this index applies to dental surfaces (DMTF), then its value is between 0 and 128, maximum 148, when it is the third molar. (10)

The study included 50 participants with ages between 19 and 63 years old, of which 24 were women and 26 men, patients followed for one year in the psychiatry ambulatory system. They received the diagnosis based on the DSM the fifth edition criteria and it did not include patients with schizoaffective disorder nor a psychotic episode within the depressive disorder. (11)

RESULTS AND DISCUSSIONS

The vast majority, 84% were living in the urban area, meaning that people living in the city have better access to the healthcare system in comparison to those living in rural areas. The lack of information and healthcare centers in the countryside is an important problem in Romania that reflects in the quality of life and life expectancy of Romanian patients. (fig. 1, fig. 2)
An important aspect was to identify the symptoms that the patients presented that could possibly interfere with the medical act in the dentistry field. The most common finds were: paranoid delusional ideas, lack of trust, difficulties in maintaining attention, auditory hallucinations and grandiose delusions. In a smaller proportion, the patients were irritable, passive or had the delusions of poisoning. (table 1)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention deficit</td>
<td>27</td>
</tr>
<tr>
<td>Grandiose delusions</td>
<td>26</td>
</tr>
<tr>
<td>Paranoid delusional ideas and lack of trust</td>
<td>23</td>
</tr>
<tr>
<td>Excessive gesturing</td>
<td>18</td>
</tr>
<tr>
<td>Auditory hallucinations</td>
<td>16</td>
</tr>
<tr>
<td>Delusion of spying</td>
<td>8</td>
</tr>
<tr>
<td>Visual hallucinations</td>
<td>7</td>
</tr>
<tr>
<td>Akathisia</td>
<td>6</td>
</tr>
<tr>
<td>Delusion of poisoning</td>
<td>5</td>
</tr>
<tr>
<td>Passivity, disinterest</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1 Symptoms of schizophrenia

The attention deficit makes it harder for the patient to follow the dentist`s
instructions, and along with the excessive gesturing and the akathisia make the examination long and difficult for both the patient and the doctor. The paranoid delusional ideas, the lack of trust and the delusion of poisoning will make the patients with this diagnosis avoid interactions, making them cancel the appointments and never check their oral health. If they do show up, the symptoms will often stand in the way of developing a patient-doctor relationship.

For the patients that were included in this study, the results showed that the group had a moderate to severe risk of caries. Also, the examination of the oral cavity showed that a high number of patients were presenting deposits of plaque and tartar, indicators of poor oral hygiene. This represents the consequence of the negative symptoms that are manifested within this disorder, the inability to perform adequate toothbrushing due to the side effects of antipsychotic medication (tardive dyskinesia and xerostomia) and the consumption of alcohol and cigarettes that is often associated with this pathology. (fig. 3, fig. 4)

The most common harmful behaviors that impact the oral health and were practiced by the patients in our study group were: consumption of food rich in carbohydrates, disinterest regarding their oral health and smoking. The high amount of sugar contained in the food weakens the enamel and nourishes and helps with multiplication of bacteria in the oral cavity, leading to inflammation of the gums, bleeding and periodontitis. Also, salivary secretion is reduced as a side effect of medication, so bacteria and food particles are stored around the teeth leading to various pathologies at this level. (table 4)

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Number of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of food rich in carbohydrates</td>
<td>42</td>
<td>84%</td>
</tr>
<tr>
<td>Disinterest regarding their oral hygiene</td>
<td>37</td>
<td>74%</td>
</tr>
<tr>
<td>Smoking</td>
<td>30</td>
<td>60%</td>
</tr>
<tr>
<td>Lip biting</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>Interposition of objects between the dental arches</td>
<td>8</td>
<td>16%</td>
</tr>
</tbody>
</table>
Scraping the gums with the nails

<table>
<thead>
<tr>
<th>Presence of harmful behaviors that impact oral health in patients with schizophrenia</th>
</tr>
</thead>
</table>
| Tardive dyskinesia is a common side effect of the typical class of antipsychotic medication (haloperidol, chlorpromazine or fluphenazine) and it is manifested as grimacing, sticking out the tongue, smacking of lips, or rapid, jerky movements of the limbs. This muscular side effects can have an impact over the medical act, especially in the dentistry field. So, it is important for the dentist to know the potential side effects, and if they do appear, to try to cope with them. The patient may be embarrassed by these movements and it can make him avoid going to a dental consultation. So, if the dentist knows the medical history of the patient, the practitioner can talk with the patient, make him/her understand that they are not judged for something that they cannot control. The doctor should try and make the patient feel safe and comfortable and in this way, they will reduce the fear and suspicion that is often present at people with schizophrenia.

In our study group, 16% (8 patients) had presented with tardive dyskinesia, and 26% (13 patients) had xerostomia. Antipsychotic and anxiolytic medications can reduce the amount of saliva secreted and may alter the composition of saliva through sympathetic and parasympathetic innervations of the salivary glands. This will lead to accumulation of food and bacteria, forming plaque on the teeth. The patients may also experience cracked lips, pain or they may have trouble eating, factors that alter the quality of life of people living with schizophrenia.

The progression of periodontal disease among psychiatric patients may be associated with psychosocial factors and stress. It was found that there is a significant correlation between psychosocial factors and chronic periodontal disease. Stress at work, depression, unemployment are risk factors for periodontal disease. The pathogenesis of periodontal disease can be explained by the presence of an increased level of stress that leads to excessive secretion of cortisol with consequent weakening of the immune system. Thus, tissue invasion by bacteria is favored. Stress can also lead to changes in behavior and the development of harmful habits, such as drinking, smoking, neglect of oral hygiene and non-compliance with visits to the dentist. (12)

It is well known that regular visits to the dentist have an important role in preventing caries and periodontal disease, but for patients with schizophrenia there are many difficulties in accessing the dentist, in the absence of an adequate national program involving patients with mental disorders in general and those with schizophrenia in particular. Thus, they are assisted only in emergency situations or only for possible tooth extractions, which will have a negative impact from a psychosocial point of view and in terms of quality of life because thus, the ability to chew can be severely affected. On the other hand, dentists consider these patients to be difficult to manage, so they sometimes opt for dental extractions than for complex therapeutic interventions, so the loss of teeth will be early in these cases. (13)

The specific symptoms of schizophrenia make it very difficult for these patients to turn to dental services, which delays possible dental restoration treatments until tooth loss becomes inevitable. Studies indicate that oral health is not a priority for the health of patients with schizophrenia. Therefore, additional studies are needed, but
also the implementation of appropriate health policies to improve the oral health of patients with schizophrenia, with the implementation of specific measures. Also, the factors that limit or, on the contrary, can facilitate the access of patients with schizophrenia to the dental office to optimize their oral health should be highlighted.

Oral diseases represent a problem in most patients with mental disorders, but especially in those diagnosed with schizophrenia. This is even more important because in many situations, the patients are unaware of the severity of the mental disorder and its consequences. In addition, there are difficulties with relational professionals in the field of oral health, due, often, to the difficulty of collaborating with these patients, as well as to the problems of the health system in general (difficult access to services, environmental factors, fear of patients with mental disorders, adequate training to work with this category of patients). Consequently, patients with schizophrenia have poor oral health, with many teeth missing or decayed, which will cause pain, infections, difficulty chewing or digestive disorders. To this are added the associated somatic diseases such as diabetes, obesity, xerostomia, as a side effect of psychotropic medication administered. (3,5)

Risk factors for the occurrence of dental problems in schizophrenic patients are represented by the persistence of negative symptoms, age, prolonged course of mental disorder, and low socioeconomic status. Stigma and discrimination are additional factors that worsen oral health, which will further affect the quality of life of these patients by reducing self-confidence and self-esteem.

CONCLUSIONS

This study helped us understand that various factors influence oral health in people diagnosed with schizophrenia. First of all, this disorder causes functional disability, so without a special program that helps them integrate into society, most of the patients are unemployed, so they don’t have the financial support in order to go to the dentist’s office for regular check-ups. Also, patients with this disorder are often suspicious and paranoid, and their lack of trust stands in the way of them going to the doctor and have access to the dental care they need.

Also, the disinterest regarding oral hygiene, along with the harmful behavior like smoking or drinking alcohol helps with the accumulation of bacteria and formation of tartar, process that is aided by xerostomia and hyposalivation. The cognitive impairment makes it difficult for them to recognize the severity of dental problems. Also, the attention deficit makes it harder for them to follow the doctor’s indication during the consultation, and the excessive gesturing makes the examination long and uncomfortable for the patient. (14,15)

Thus, it is important for the dentist to know what to expect from a patient with this disorder, to talk to them and make them feel safe and unjudged because communication will help increase the compliance of the patients suffering from schizophrenia.

References

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