

THE IMPACT OF PSYCHOTROPE MEDICATION ON ORAL HEALTH

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ABSTRACT

Aim of the study The present paper aims to achieve a brief presentation of the oral health problems derived from the long-term administration of the psychotropic medication, in order to emphasize the importance of educating the population and the health specialists how to prevent the oral pathology that can lead to various disabilities, further reducing the quality of life of the patient with mental disorders with chronic evolution. **Material and methods** The article is structured as a synthesis of recent literature, published in prestigious magazines.

Results The results of these studies show that almost all psychiatric medicines, especially antipsychotics, antidepressants and mood stabilizers, most commonly cause xerostomia, sialorrhea, implicit dental caries or gingival bleeding. **Conclusions** Knowing these complications from the oral sphere, medically induced in patients undergoing long-term psychiatric treatment, may lead to the establishment of adequate preventive measures, thus increasing the quality of life of the patients and thus avoiding the more serious complications arising from persistent adverse effects.

Key words: psychotropic medication, hypersalivation, xerostomia, gingival bleeding

INTRODUCTION

Patients with psychiatric disorders, especially with prolonged evolution (schizophrenia, affective disorders, mental retardation, etc.) often present with poor oral health and dental hygiene (1). Potential aetiological factors for poor oral health are psychiatric diseases, neurological disorders, side effects of drugs (dry mouth, hypersalivation), induction of vomiting in eating disorders, substance abuse (nicotine / cannabis smoking, alcohol consumption) poor self-care and poor oral hygiene. Increasing the frequency of oral health problems and dental complications (dental caries, infection, tooth loss) among

psychiatric patients is a significant public health problem. Practitioners in the field of mental and dental health often encounter difficulties in addressing this vital issue of public health in their practice (2,3).

MATERIAL AND METHODS

The present paper is constituted as a synthesis of recent literature published on the impact of the main classes of psychotropic drugs on the oral health, aiming mainly at their long-term administration, as a standard therapeutic indication for the management of psychiatric disorders with chronic or prolonged evolution.

RESULTS AND DISCUSSIONS

Patients with disorders of the central nervous system are most commonly treated with psychotropic medication. Thus, in their therapeutic schemes are included antipsychotics, antidepressants and timostabilizers.(1,4) These pharmacological products associate a series of adverse effects that have a direct impact on oral health. Oral disorders such as bruxism, orofacial dystonia, oro-mandibular dyskinesia are related to the extrapyramidal effects of antipsychotic medication, by their antagonist effect on dopaminergic receptors in the nigrostriatal tract.(5,6) Medications with anticholinergic or anti-adrenergic effect, such as tricyclic antidepressants (which are no longer widely used today) can lead to xerostomia, associating various complications including candida and other infections in the oral sphere. Among the timostabilizers, lithium administration induces a wide range of adverse effects in the oral sphere including dry mouth, infections and mouth cavity ulcers. Psychostimulants, on the other hand, can cause xerostomia, gingivitis, bruxism, tooth erosion and mucosal ulceration (2,7,8).

A number of studies establish a true link between the increased prevalence of oral pathology in patients with psychiatric disorders and the adverse effects of psychotropic medication. Thus, it is necessary to pay extra attention to these risks related to oral health, with a view to a differentiated therapeutic and prophylactic approach(7,9,10).

Some clinical studies have shown that adults with at least one mental disorder are at twice the risk of developing oral disease in the general population, especially due to poor oral hygiene. Mental illness is associated with an unfavorable prognosis for general health, including in the oral sphere, targeting parental illness, edentation and dental caries. Extensive studies have

shown that psychiatric medication is a true predictor of poor oral health. In addition, people with psychiatric disorders having chronic evolution, such as schizophrenia, do not have regular access to dental checks, their oral health being exposed to a significant risk (11,12,13).

The most common adverse effect of psychotropic medication in the oral sphere is xerostomia. The patient feels the dryness of the oral mucosa and the dramatic decrease in the quantity of saliva, which leads to oral candidiasis and the appearance of dental caries. The medication with intense anticholinergic action, exposes to the highest risk of deterioration of the oral health through their prolonged effect on the activity of the salivary glands. Second generation antidepressants such as venlafaxine, reboxetine or selective serotonin reuptake inhibitors may cause xerostomia but this is of lower intensity. Other medicines with anticholinergic properties such as antipsychotics and antiparkinsonians (often used in psychiatry to counteract the potential extrapyramidal effects induced by antipsychotics) may also cause xerostomia. On the other hand, patients undergoing lithium treatment may incur the appearance of dry mouth in the context of dehydration that has arisen in the context of the polyuria induced by its administration (2,3,10,14).

If the clinical context does not allow for psychotropic treatment change, xerostomia control options include adequate diet and hydration and non-pharmacological salivation stimulators (2, 11).

For the short-term regulation of xerostomia, cholinergic agonists such as pilocarpine have been shown to be effective, but its long-term use may be restricted by systemic adverse effects including headache, hypersudoration and diarrhea. The management of patients with xerostomia ideally includes intensive oral

education, application of fluoride derivatives and early intervention in case of problems in the oral sphere (3,15).

Bruxism, another adverse effect of psychotropic medication, represents the appearance of a series of exaggerated movements in the jaw with the wearing of the teeth, leading to dental erosions with various complications. This pathology is sometimes associated with the administration of antipsychotics and antidepressants. It may occur independently of the administration of psychiatric medication in a paroxysmal anxiety context (4,5,14).

Sodium valproate, which is used in a wide range of psychiatric pathologies, either as a first-line medication or as an adjuvant medication, is associated with an increased risk of thrombocytopenia and platelet aggregation disorders. Thus, bleeding was reported even at the oral level, especially in patients with pre-existing dental-oral pathologies. At the same time, some antidepressants, especially in the class of selective serotonin reuptake inhibitors, may cause platelet aggregation disorders, but there is little evidence to confirm involvement in the occurrence of gingival bleeding (1,3,16).

Atypical antipsychotics, especially clozapine, also have effects derived from cholinergic agonism, which lead to sialorrhea, most often at night, but in some patients it continues. Hypersalivation hinders the dental medical act, by deteriorating the materials and by the risk of aspiration (5,6).

Most patients with mental disorders are less concerned with maintaining adequate oral hygiene and with preventing or treating early oral pathologies. In addition, studies indicate that oral health problems are usually exacerbated by poor hygiene, poor diet, nutrient, smoking or abusive and chronic consumption of alcoholic beverages, restricted access to dental services or pure phobia of oral interventions (10,11,12).

Typical antipsychotics (typical antipsychotics or first-generation antipsychotics) and atypical antipsychotics (atypical or second-generation antipsychotics) are used to treat a wide range of psychiatric disorders. Although both groups of antipsychotics block dopamine receptors in the brain and have comparable efficacy, the atypical ones differ from the typical in that they have a more secure profile of neurological side effects. They are less likely to cause extrapyramidal symptoms, such as parkinsonism expressed by muscle rigidity and involuntary and intentional tremors. These deficiencies have a negative effect on fine motor movements and, consequently, on the patient's ability to efficiently brush his teeth and perform oral hygiene activities. Both types of antipsychotics can cause tardive dyskinesia, but atypicals compared to typical ones are less likely to do so (3.9% versus 5.5%). This para-functional activity of the mastication and the musculature of the tongue can have a negative effect on the teeth and occlusion. Both the typical and the atypical have anticholinergic side effects, including xerostomia (dry mouth). Saliva plays a major role in the prevention of dental caries; therefore, xerostomia is a significant risk factor for the appearance of dental caries. Patients with dry mouth often drink carbonated drinks, which increases the risk of caries formation even more. However, a systematic review of the relevant literature did not find fundamental differences in the appearance of dry mouth between the typical and the atypical in the medium and long term. The prominent side effect of the atypicals is the metabolic syndrome that manifests with significant weight gain, dyslipidemia and diabetes. All listed side effects of antipsychotics are considered risk factors for dental health (1,2,4,10,13).

The population of patients with psychiatric disorders with chronic evolution is experiencing, broadly speaking, the same oral health problems and the same barriers

in accessing adequate dental care as the general population. However, they are at an increased risk of developing diseases in the oral sphere. There is a complex interrelation between socio-economic factors, mental illness, its treatment and oral health. The high costs of the dental care and the fear of the dental intervention itself constitute the main barriers in the prevention and in the care of the oral pathology in patients with mental disorders (7,8,16,17).

The disease in general, be it physical or mental, can lead to impaired self-care capacity, including in maintaining oral hygiene. Support in order to obtain a good quality of life and the correct information about potential health problems that may arise are essential to ensure proper oral health.

Factors that influence oral health:

The type and stage of mental illness.

Conclusions

The results of several studies conducted in recent years have underlined that long-term administration of psychotropic medication can cause important oral health problems, which cause the quality of life to decline and ultimately have an adverse impact on the overall health. Thus, antipsychotics, antidepressants and timostabilizing medication are among the most widely used classes of psychotropic medication, often being included in

- Patients' disposition, motivation and self-esteem.

- Lack of ability to properly assess health problems.

- The patient's habits, lifestyle, ability to self-care.

- Socio-economic factors.

- Factors related to cultural and confessional particularities.

- Lack of information and limited access to therapeutic resources.

- Adverse effects of psychotropic medication.

- The level of information of the dentists on the specific psychiatric pathology and on the specific medication administered (9,13).

therapeutic schemes that require long-term administration. The adverse effects that they have in the oral sphere are common and if not managed in time can lead to complications such as parental illness, caries and even edentation, situations that further impede the overall functioning of the patient. Thus, the development of effective means of prevention and intervention is needed to properly manage the oral health problems of patients with chronic mental disorders.

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