# Anxiety in Patients Submitted to Oral Biopsies: An Overview

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# Abstract

Biopsy of a tissue from the maxillofacial complex is a reliable and easy-to-perform maneuver that contributes to the definitive diagnosis of the majority of oral lesions. It is a simple procedure that is routinely performed; nevertheless, it generates great anxiety and fear in patients submitted to it. Not only because biopsy is a surgical procedure but also due to the possibility of histopathologic diagnosis of cancer represents major factors associated to anxiety. The present article touches on some of the aspects related to patients' anxiety as one of the adverse factors of this surgical procedure, emphasizing the importance of the dentist in "demystifying" the biopsy procedure.

Keywords: anxiety, biopsy, diagnosis, mouth mucosa, oral, oral surgical procedures, surgery.

### **INTRODUCTION**

With the development of science, particularly in the areas of medicine and dentistry, it has been noted that the relationship between a characteristic clinical sign and disease is not always reliable. At this point, a need arises for using complementary exams in clinical practice. These exams provide indispensable support for establishing definitive diagnosis, as well as for preparing the prognosis, therapeutic planning and follow-up of the patient<sup>1</sup>.

Among the main complementary exams, biopsy is one of the most popular and faithful in the diagnosis of lesions. The etymological origin of the word biopsy comes from Greek, in which "bio = life" and "opsia = vision". Thus, a fragment of live tissue is removed to be microscopically analyzed. This exam is used to confirm diagnosis of diseases in the human body. In theory, it can be performed for all and any types of pathological process, starting with the simplest such as hyperplasia tissue, through to severe infirmities such as cancer<sup>2-3</sup>.

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Submitted: 20/11/2009 Aproved: 09/09/2010 There are no absolute contraindications for performing biopsies. These are relative and almost always concern the general status (uncontrolled diabetics or severely hypertensive individuals) or the patient's local condition. Moreover, necessary care must be emphasized with regard to suspected angiomatous lesions, among these particularly the intraosseous cavernous hemangiomas. The biopsy of oral pigmented lesions also needs special attention due to the possibility of melanoma<sup>1</sup>. In such cases, an incisional biopsy should be performed in order to minimize the risk of metastasis<sup>3</sup>.

The histopathologic diagnosis must be performed, whenever possible, before determining the therapeutic approach. Thus, the result of the microscopic analysis of a biopsied specimen is of the utmost importance in determining the real need for treatment, particularly in the event of the lesion in question being cancer<sup>4</sup>.

Cancer is a set of different diseases that affect various topographic locations and is of different morphological types<sup>5</sup>. Oral cancer is a serious public health problem in developed and developing countries, being responsible for over six million deaths in the world every year. Its incidence in the general population is around 40% of all the malignant tumors in the region of the head and neck, and the most frequent histopathologic diagnosis is oral squamous cell carcinomas (SCC)<sup>1,6-8</sup>.

The approach of patients with suspected SCC becomes complex because of some reasons; it is frequently faced with health professionals' lack of knowledge and resources, in addition to involving patients' fear, anxiety and prejudice. These intercurrences are prejudicial, delay diagnosis and treatment and often lead to a worse prognosis<sup>9</sup>.

In the majority of instances in which the patient is informed that a biopsy in the mouth will be required, one perceives that great anxiety and fear is generated. This

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explains the stigma of the word biopsy and the popular belief that this procedure is only performed to diagnose serious and severe diseases, especially cancer. Nevertheless, it is worth emphasizing that the majority of lesions present in the oral mucosa and its attached structures are not aggressive diseases. In fact, the majority concern indolent lesions that can be overcome, even relatively easily<sup>10-11</sup>.

The word anxiety is derived from a German word, whose root "angst" means narrowing or constriction, tightnes<sup>12</sup>. Anxiety is a state oriented towards the future, functioning to motivate the body to behave itself in such a way so that future danger is prevented. It can also be defined as a set of somatic manifestations: increase in cardiac and respiratory frequency, sweating, muscular tension, nausea, empty feeling in the stomach, giddiness, and psychological manifestations. Apprehension, alertness, restlessness, hypervigilance, difficulty with concentration and falling asleep, among others, are also noted<sup>13</sup>.

Anxiety can be understood as a human being's response to the unknown. Numerous factors have been identified as being responsible for the anxiety that surrounds the moment of the anesthetic-surgical procedure in the case of biopsy: concern about lesions that could occur during the procedure, apprehension about pain in the postoperative period, separation from the family, loss of independence, fear of becoming incapacitated or being diagnosed with serious illnesses, fear of never waking up again, fear of waking up in the middle of anesthesia, fear of the diagnosis and of surgical complications. High levels of preoperative anxiety may be associated with the nature of previous anesthetic experiences, high tobacco consumption, psychiatric disorders, negative perception of the future, depressive symptoms, presence of pain and history of cancer in the family<sup>13-14</sup>.

In spite of the advances of medicine in the diagnosis and treatment of cancer and the increase in information circulated by the media, cancer is still frequently equivalent to a "death sentence", commonly associated with pain, suffering and degradation. The patient and his/her family live through the diagnosis of cancer and the entire process of the disease as a moment of intense anguish, suffering and anxiety<sup>15</sup>.

In the trajectory of cancer, anxiety manifests itself early, during the various moments of diagnosis and later, continually during the treatment and post-treatment periods<sup>4,11</sup>. Contrary to what less sensitive clinicians might think, it does not concern the "patient's problem" if he is overly anxious, since anxiety could significantly compromise the success of the treatment as well as the clinician's success<sup>15</sup>. Other demographic and social problems also seem to influence the degree of anxiety of the patient with a suspected neoplasm, such as, for example, being a woman, having developed cancer at an early age, as well as in patients with problems in relationships with their families, friends and health professionals<sup>16</sup>. Patients may begin to experience moderate or severe anxiety while they wait for the results of diagnostic exams. For patients who are receiving treatment, anxiety may also increase the possibility of the intensification of pain, as well as a series of other symptoms, ranging from anguish, depression, uncontrollable vomiting and nausea, aggravated by emotions<sup>15,17</sup>.

These disorders may compromise the quality of life for the patient with oral diseases and cancer. In these cases, the patient does not function in a social and emotional capacity and therefore anxiety requires therapeutic intervention when high levels of stress are noticed<sup>18-19</sup>.

# DISCUSSION

According to Jacobsen<sup>20</sup>, anxiety involves the occurrence of an aversive or painful condition, some degree of uncertainty or doubt and some form of impotence by the body at a given stage of events. Anxiety can be set off by certain situations, such as fear of the unknown, stressful situations, feeling of incapability, among others. In addition, surgical procedures are situations in which the presence of nervous tension is often observed<sup>21-22</sup>.

It is possible to identify that there are critical moments for the patient with oral lesions, particularly in those with suspected malignant neoplasms. One of these is when the patient suspects that they may have the disease. Another is the time when the diagnosis is confirmed, in which the fear of treatments and surgery, changes in route and even of expenses with medication and hospitalization comes to the forefront.

Fear of the unknown has been pointed out as the major source of anxiety among patients that undergo presurgical evaluation<sup>15</sup>. Nevertheless, a specific evaluation of anxiety does not form part of the routine of surgical teams, so that this disturbance passes unnoticed. In such circumstances, the altered emotional state of patients is related to various reasons (family problems, children at the preschool stage, possibility of mutilations, apprehension about presenting malignant neoplasms)<sup>23-24</sup>.

In a large part of the population, fear of pain is linked to the image of the dentist and medical doctor, both because of the instruments used and by the intervention performed. Evaluation of anxiety inducing factors, particularly preoperatively, is extremely pertinent, mainly in detecting the symptoms of anxiety.<sup>17-18</sup> Some studies corroborates this data, as it is shown that in a large part of the population, anxiety is exacerbated on seeing invasive instruments such as the scalpel blade, suture needle and syringe with anesthesia, all of which are used in the surgical procedure of biopsy<sup>11</sup>.

Anxiety disorders may be common among patients that are going to be submitted to biopsy, and usually precede the diagnosis of the disease being investigated. The stress caused by a diagnosis of cancer and its treatment may precipitate the recurrence of a pre-existent anxiety disorder. These disorders may incapacitate a patient and make treatment difficult, which is why they require immediate diagnosis and effective control<sup>8,11,15</sup>.

It is common to observe how many patients are truly terrified when they hear the word "biopsy"<sup>2,11</sup>. It is believed that this occurs due to a lack of more information in the face of such a procedure. In view of the high number of patients submitted to biopsy, with the presence of anxiety at the various stages of the procedure, the need is emphasized for special attention by health professionals with regard to the patient's anxiety during the mentioned complementary exam<sup>4</sup>.

Furthermore, the dentist has a role of fundamental importance in diminishing the stress and anxiety associated with biopsy. As the patient is correctly guided with regard to all the stages related to the exam, they tend to show more cooperation and patience. Moreover, it should be emphasized that the majority of lesions present in the maxillofacial region have an excellent prognosis and may be immediately treated<sup>9,17</sup>.

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