

ASPECTS OF POST-OPERATING DISEASE IN THE AREA OF ORAL SURGERY AND ORO-MAXILO-FACIAL-PREDICTION FACTORS

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ABSTRACT

The **aim** of this study is to establish correlations - with profound practical impact, between the risk factors that can be quantified and the incidence and prevalence of post-operative disease in the area of oral and oro-maxillofacial surgery. **Materials and Methods:** In order to materialize the main aim of this study, a group of 210 patients was analyzed, previously diagnosed with different types of pathologies in the area of dento-alveolar surgery and of the oro-maxillo-facial surgery, patients from the territory of Moldova, evaluated, treated and monitored at OMF Surgery Clinic (hospital and ambulatory), Iasi between 2015-2018. **Results and Discussions :** Depending on the general state diagnosis of patients with suspicion of post-operative disease it was as follows: apparently healthy- 59%, cardiovascular disease-18% , metabolic disease-12% ,hepatic disorders -7% ,neurological disorders -4% . **Conclusions:** The individualization of surgical therapy is a prerequisite for success so that the assessment of the patient's field needs to be addressed with great seriousness, with clinical implications being very varied.

Key words: *post-operative disease, traumatic interventions, risk factors*

INTRODUCTION

The therapeutic success in the sphere of oral and maxillofacial surgery implies not only the accuracy of obtaining a diagnosis, effective anesthesia or improved surgical techniques, but also ensuring a succession of biological events that are absolutely necessary in normal post-operative evolution[1-12]

A particularly important fact is that, regardless of the apparent simplicity of surgery, monitoring of intervention is essential in the context of any procedures that involve local and / or general risks and which consequently impose an important set of precautions and practical knowledge.

The most common factors, with their multiple faces, involved in postoperative disease are represented by:

- The "area" to be interfered because if the patient's reactive peculiarities are ignored, the operator act can bring more disadvantages than benefits.
- Traumatic interventions accompanied by important tissue destruction, long-term bruising, and especially imperfect anesthesia - are factors that cause significant humoral disturbances.

From a medical and forensic point of view, preanesthetic consultation is mandatory and, as Menigaux stated in 1994, "a surgical act must always provide the best performance, tailored to each individual situation."

The rigorous medical history, the complete organic exam, the general biological examinations actually performs the assessment of the patient's field and

not a diagnosis of the disease itself[13-18].

In the formula commonly accepted by Aderhold 1988, Bennett, Rosenberg 2002, Clarke, Warner 2000, Harrison, Fauci, Kasper 2001, Latham 1999, Schafler, Hine 1995, they fall into the "pre-anesthetic balance" stage. If a field with significant deviations from normal occurs, more complex investigations are recommended in clinics or specialized laboratories and only a close interdisciplinary collaboration (internist, cardiologist, diabetologist, allergologist, etc.) establishes the behavior of anesthesia, time, place and extent of surgery. Knowing as accurately as possible the patient's field allows the shadowing of explorations, pre-anesthetic readings, prognostic formulations and, of course, avoiding erroneous recommendations[19-24].

Factors that give the body the morpho-functional and biochemical qualities that condition the reactivity and efficiency of adaptation are represented by all the elements that have worked on patient development and evolution to date: genetic factors, sex, age, nutrition, pre-existing and current pathology, constitutional, immunobiological, biochemical,

endocrine, nervous features, lability of homeostasis,

social factors.

The aim of this study is to establish correlations - with profound practical impact, between the risk factors that can be quantified and the incidence and prevalence of post-operative disease in the area of oral and oro-maxillofacial surgery.

MATERIAL AND METHOD

In order to materialize the main aim of this study, a group of 210 patients was analyzed, previously diagnosed with different types of pathologies in the area of dento-alveolar surgery and of the oro-maxillo-facial surgery, patients from the territory of Moldova, evaluated, treated and monitored at OMF Surgery Clinic (hospital and ambulatory), Iasi between 2015-2018.

RESULTS AND DISCUSSIONS

Our study sought to study the implications and to establish correlations with the incidence of postoperative manifestations of the following indices: sex, age, background, pre-existing conditions, psychological profile, dento-periodontal condition

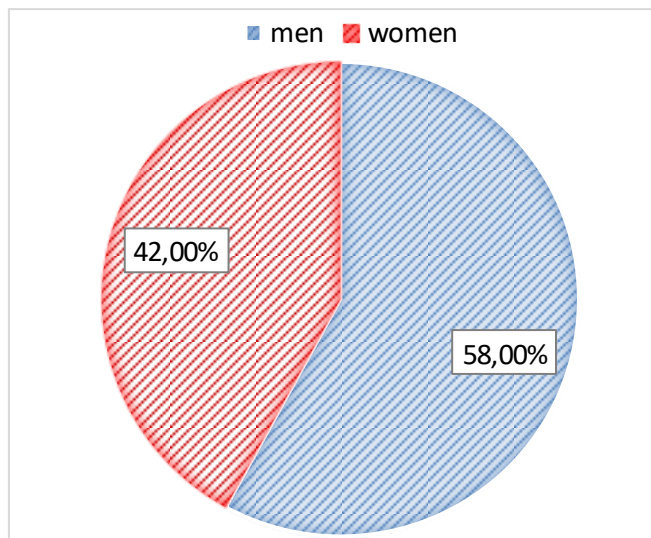


Fig.1. Distribution of the patients on the gender

The distribution on the sex index of patients with suspicion of post-surgical disease was as follows: women 42 % and men 58%. We can conclude that the patient's sex is a predictor of postoperative disease, especially men have shown a high risk (Fig.1).

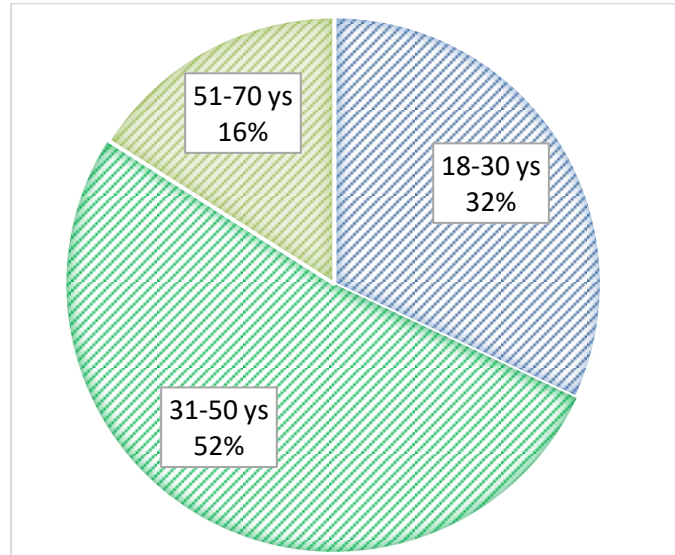


Fig. 2. Distribution on the age of patients

Distribution on the age of patients who claimed accusations of postoperative disease was the following: age group 18-30 years: 32% , age group 31-50 years: 52%, age group 51-70 years: 20%. According to the statistically data processing, the age of the patient is a predictor of postoperative disease, the age group of 31-50 years (with a statistical average of 52%), demonstrating a higher risk potential for the postoperative disease type (Fig.2).

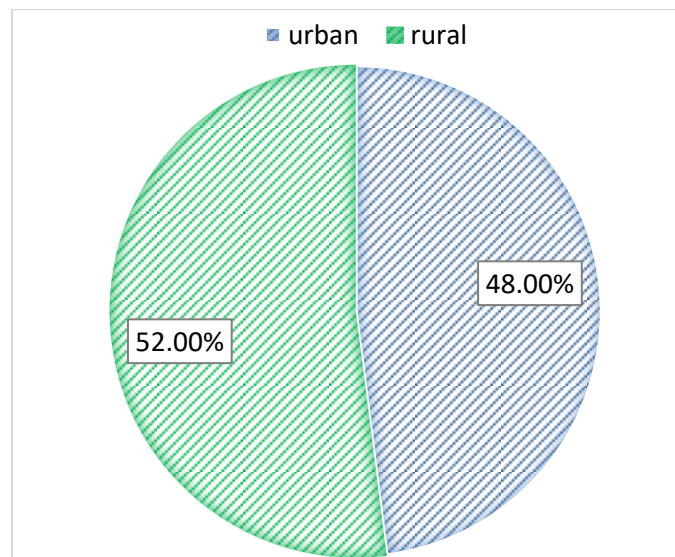


Fig.3 The distribution according to the environmental origin of the patients

The distribution according to the environmental origin of the patients who claimed the postoperative disease accusation was the following: 48% of the patients were from the urban area, 52% belonged to the rural environment(Fig.3).

The quantification of the statistical data pleads for the conclusion that the environment of the patient's origin is a predictor of postoperative disease. In particular, rural patients (with a statistical average of 52%) show a higher risk of post-operative disease events.

Poor health education, poor access to medicines and altered perception of the importance of pre and postoperative oral hygiene are the arguments that support our conclusion.

Patients to be undergoing dento-alveolar surgery have more or less a combination of known or unknown potential general problems. Unfortunately, patient investigation in dentistry usually stops more on the history of the pathological condition that has brought patient in consultation and treatment. Although under ambulatory conditions a thorough general

examination is relatively difficult, a rational and efficient system needs to be adopted through precise questions and methodological examinations in order to obtain the necessary and sufficient data to specify the terrain and the degree of risk. Patients with routine dental care, orthopedic surgeries in patients with "apparently good" general condition, but sometimes even if a general condition has not yet been noisy (hypertension, coronary artery disease, diabetes mellitus, etc.) whether the patient deliberately conceals his illness being pressed with pain. For these reasons, it is necessary to have a close and competent clinical control of the symptoms and signs of the main devices for a more objective assessment of their functionality.

Interferences in the oro-maxilo-facial surgery are characterized by a high degree of complexity, a significant stretch of territory interested in surgery, often with related areas, or at a distance from where mucous or bone grafts are taken. In these complex clinical conditions, a high degree of disease risk periodontal disease in a systemic correlative context.

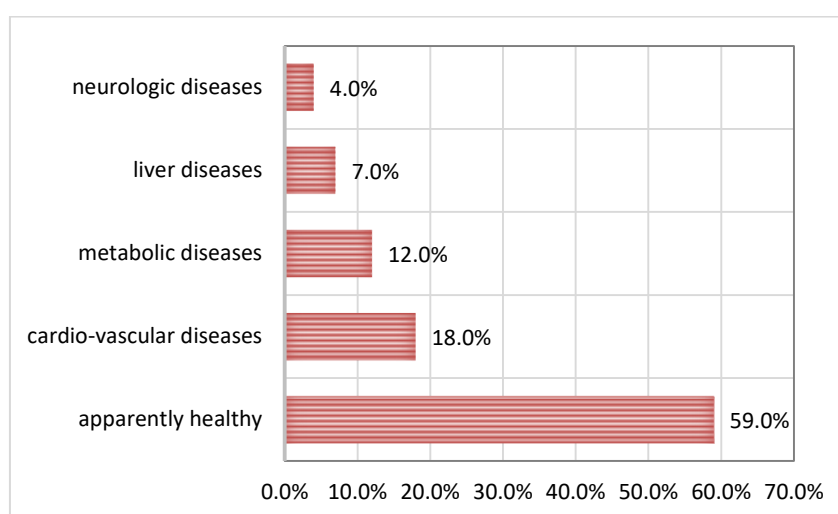


Fig.4 Distribution of patients with suspicion of post-operative disease according with general status

Depending on the general state diagnosis of patients with suspicion of post-operative disease it was as follows: apparently healthy- 59%, cardiovascular disease-18% , metabolic disease-12% ,hepatic disorders -7% ,neurological disorders -4% (Fig.4).

In assessing this particularly important parameter in the context of the compensation of each general clinical entity, there are no correlations statistically significant. The psychological profile of the patient remains a particularly important factor in the success of any therapeutic intervention, but especially in surgical interventions in the oro-maxillo-facial area. The visit to the surgeon is most often for the patient a stressful, unknown time, with high mental load and neuro-vegetative dystonia. In dental and alveolar dental practice consciousness is related to pain, fear of pain causing a large proportion of the population not to treat dento-alveolar affections.

Although there are pain relieving from analgesics, loco-regional and / or general anesthesia, emotion and anxiety, fears still exist in patients who will have to

undergo dental care.

Dental anxiety is primarily associated with a negative behavior and its primary source is pain or fear of pain, pain being an experience that every person lives more or less frequently, with greater or lesser intensity. Moreover, the most anxious patients are the most susceptible to pain.

These patients describe a behavior to avoid contact with the oral surgeon, usually with a rather poor oral health and hygiene status.

The addressability of these patients in dento-alveolar care is governed in the vast majority of cases by the extreme factor: pain, suppuration, trauma.

Melzack (1999) and Milgrom (1998) have stated that "the affective dimension of pain is difficult to express, terrifying, cruel or killing "being far from the real affectional description of pain. In this context, it seemed important to determine at the level of patients who described postoperative manifestations what are the picture of the psychological profiles and how they modulate the incidence of postoperative disease.

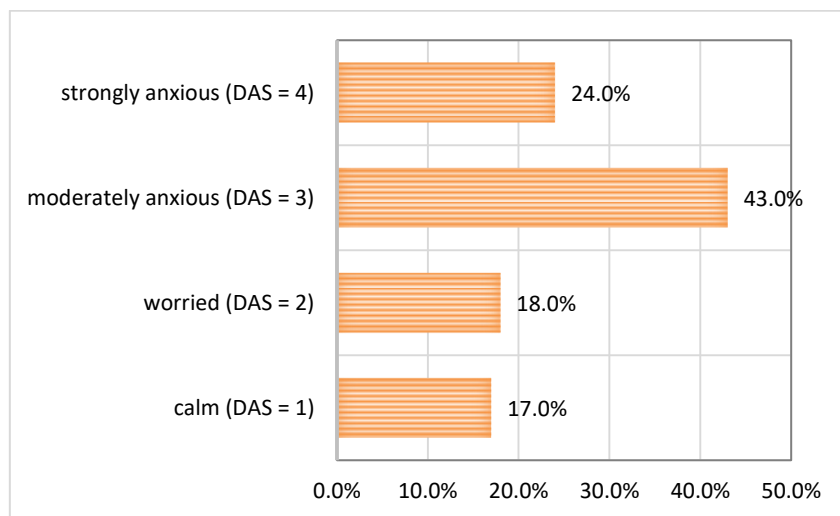


Fig.5 Distribution of the patients according to the psychological profile

Thus, the distribution according to the psychological profile in relation to the dental anxiety scale of the patients who claimed the de facto postoperative disease accusation was the following: calm (DAS = 1) -15%, troubled (DAS = 2)-18%,

moderately anxious (DAS = 3)-.43%, extremely anxious (DAS = 4) -24%.

According to the statistical results, it is certain that the degree of negative emotion (DAS, Psychological Profile) declared by the patient is a prediction factor of postoperative disease. In particular, impressive patients (DAS-3 / with a statistical rate of 43% and DAS-4 / with a statistical average of 24%)

demonstrate a high risk of post-operative disease(Fig.5).

Thus, in order to quantify the oral health level in the context of statistical applications, we have resorted to the following systematization:

- dento-periodontal health status satisfactory (abundant tartar or tartar gingivitis)

-dento-periodontal health defectuous (multiple carious lesions, abundant tartar or gingivitis tartar)

dento-periodontal health condition precarious (root remnants, multiple carious lesions, abundant tartar or tartar gingivitis)

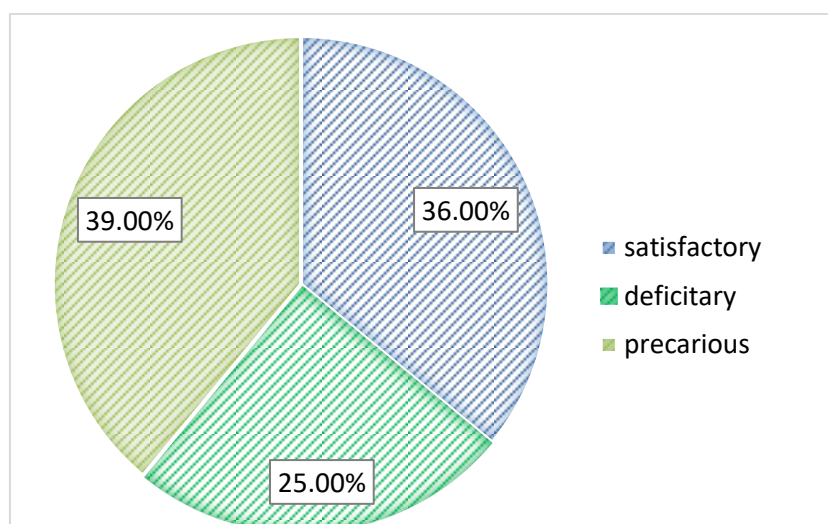


Fig.6 Distribution according to dento-parodontal health status of patients

Consequently, the distribution according to dento-parodontal health status of patients with suspicion of "postoperative disease" symptoms was de facto the following: dento-periodontal health condition satisfactory- 36%, dento-periodontal health condition deficitary - 25% ,dento-periodontal health condition precarious -39%(Fig.6).

We can conclude that oral health is a prediction factor for postoperative disease

. In particular, patients with multiple dento-periodontal problems (with a statistical rate of 39%) show a high risk. The importance of this finding lies mainly in the exacerbation of oral microbial (by dento-periodontal disease) in patients where oral hygiene does not is a strong point.

A factor with a special role as a predictor but also of certainty in the installation of postoperative disease manifestations is observing the post-operative indications.

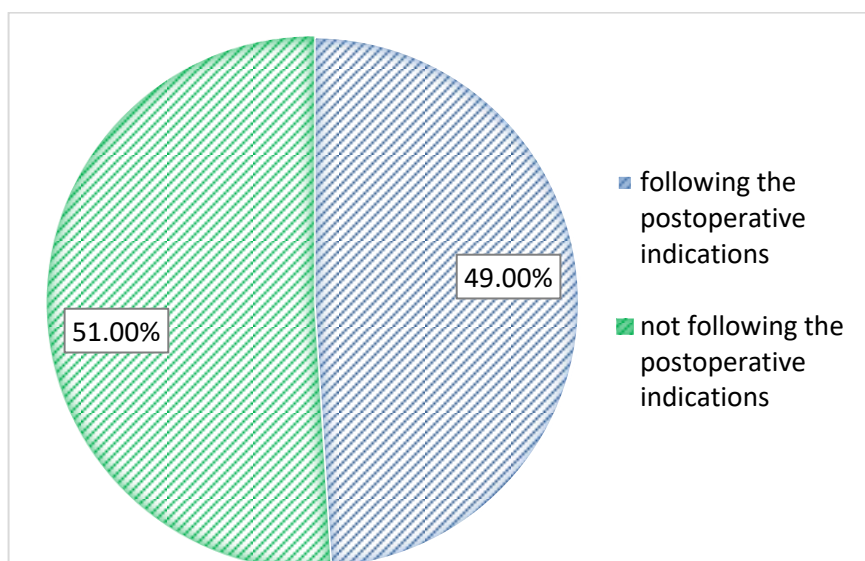


Fig.7 Distribution according with post-operative indications

Observing the post-operative indications for patients who have claimed postoperative disease accusations: subject to postoperative indications - 49% ,without observance of postoperative indications -51%(Fig.7).

Non-observance of postoperative indications (with a statistical average of 54%) is a prediction factor and the certainty of postoperative disease. The risk of installing the de facto postoperative disease is amplified by non-compliance with postoperative indications.

CONCLUSIONS

1. The triggering of postoperative disease is fully consistent with a

number of major factors that depend on the patient's side, on the other side they depend on surgery.

2. The individualization of surgical therapy is a prerequisite for success so that the assessment of the patient's field needs to be addressed with great seriousness, with clinical implications being very varied.

Any dental care is traumatic even for a patient considered as healthy before, especially if a patient with a particular physiological condition (elders, children, pregnant women) or trained organisms is involved.

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