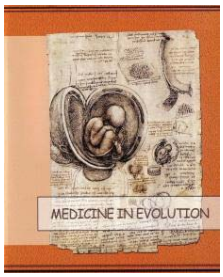
The role of scaling in dento-periodontal health



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Abstract

Periodontopathy is an infectious disease, most of the pathogens have already been identified. Prophylactic measures are based on the finding that continuous accumulation and successive changes in the composition of the supra and subgingival plaque is correlated with the transformation of gingivitis into periodontitis. Prophylaxis of gingivitis is based on plaque control. Prophylaxis of periodontitis is based on the treatment of gingivitis and prophylaxis of relapses. The aim of this paper is to highlight the importance of scaling and proper oral-dental Hygiene in periodontal health. Measures of primary or secondary prophylaxis of periodontal disease, correlated with methods of oral hygiene education contribute to the promotion, maintenance, and restoration of periodontal health. Periodontal prophylaxis and oral-dental prophylaxis generally play a particularly important role in the prevention of caries and periodontal diseases, with periodic control and scaling at the dentist being particularly useful.

Keywords: scaling, periodontal disease, tartar, bacterial plaque

INTRODUCTION

Periodontopathy is an infectious disease, most of the pathogens have already been identified. Bacteria are essential, but not enough to cause the disease. Host factors (heredity) and environmental factors (smoking) are equally important as determinants of the disease and its severity. The interaction of these factors has been demonstrated by recent research, which has shown the complexity of interactions in multifactorial diseases, with emphasis on the specific role of some bacteria and the influences of genetic, environmental and risk factors. Periodontal disease is a concept that meets the totality of the manifestations at the level of the covering periodontium, with a plurifactorial etiology, with chronic evolution and complex and long-term treatment. Currently, following in-depth research, it is specified the main determining role of the microbial factor in the production of periodontal disease in its destructive form, the other factors being favoring or predisposing.

Periodontal risk can be identified in terms of risk factors, risk indicators and periodontal risk predictors. Periodontal risk assessment aims to identify them for the purpose of avoiding, reducing, or controlling them. The risk factor is considered to be determinant for the onset of the disease: it presents biological plausibility as a causative agent (prospective clinical studies support its association with periodontal disease, e.g. smoking) The risk Indicator is considered to be partially determinant for the onset of the disease. The demonstration by prospective clinical studies of the association of a risk indicator with periodontal disease leads to its subsequent consideration (recognition) as a risk factor.

The etiological circumstances of diseases of marginal periodontium are local and general. Local factors are determining - bacterial plaque and facilitating - dental tartar, occlusal trauma, dental caries, edentation, dental-maxillary anomalies, parafunctions, vicious habits, iatrogenic factors, other local factors.

The first form of manifestation of periodontal disease in the oral cavity is gingivitis, which is a reversible inflammation in the marginal covering periodontium. The next stages of evolution of gingivitis go towards an irreversible character of marginal periodontitis with damage to the marginal covering and support periodontium.

Modern dentistry attaches great importance to the potential of periodontal disease to influence systemic evolution, the research conducted directing the purpose of periodontal treatments, in the sense of eliminating specific infections. It should be emphasized that proper oral hygiene accompanied by regular oral examinations contributes to the success of periodontal treatments. The thorough scaling performed, with the removal of granulation tissue and applications of antimicrobial agents remain the basic therapeutic workmanship in the eradication of periodontal infections.

Beyond the individual predisposition of patients, oral-dental diseases have, for the most part, a microbial etiology. However, lifestyle has an important favoring role in the occurrence of caries and pulp diseases, periodontal disease, and oral and maxillofacial cancers. It includes oral-dental hygiene habits, increased enamel resistance through fluoridation, carbohydrate-rich nutrition, alcohol and tobacco consumption, and the frequency of visits to the dentist.

Prevention is part of the initial therapy of periodontal disease and is aimed at eliminating etiological factors. Prophylaxis of periodontitis is based on prophylaxis of gingivitis and preventing the transition to periodontitis. Not all gingivitis becomes periodontitis, but all periodontitis begins as gingivitis.

Prophylaxis is the key to oral-dental health, it can be carried out correctly only by identifying the causes of the disease, and then eliminating them. The etiopathogenic concept of periodontal disease has directed periodontal therapy towards methods of diagnosing the disease, the possibilities of treatment and, what is more important, the need for prophylaxis of this chronic condition and with irreversible effects over time.

Prophylactic measures are based on the finding that continuous accumulation and successive changes in the composition of the supra and subgingival plaque is correlated with the transformation of gingivitis into periodontitis. Prophylaxis of gingivitis is based on plaque control. Prophylaxis of periodontitis is based on the treatment of gingivitis and prophylaxis of relapses.

Prevention is based on assessing risk factors, which increase susceptibility to the disease and ensuring measures to reduce them among the population. Measures to prevent periodontal disease include brushing and flossing daily to remove plaque from teeth and gums, regular visits to the dentist for professional prophylaxis, and a regular periodontal evaluation. The dentist should be informed about the history of diabetes and the current condition. Periodontal disease can affect patients with cardiovascular disease by harmful bacteria around the teeth. These harmful bacteria and inflammatory mediators they produce can contribute to clogging the blood vessels of the heart and other vital structures. The first stage of treatment of periodontal disease is usually a comprehensive prophylaxis that includes scaling to remove plaque and tartar deposits below the gingival line. The roots of the teeth will also be smoothed over the entire exposed surface (polishing) to remove bacterial toxins and allow the gum tissue to heal and reattach to the tooth.

Scaling is a therapeutic labor by which deposits of supra and subgingival tartar are removed from natural teeth and in some cases from prosthetic works, as well as the bacterial plaque with the delay of its appearance by removing roughness on the dental surface. In case of installation of periodontal disease, when the tartar is located on the root surface, in the depth of the periodontal pockets, the scaling is accompanied by a root smoothing that ensures the healing of the periodontium. In addition to prophylactic treatment, scaling is considered the first line of nonsurgical periodontal treatment. Scaling also has beneficial effects on an aesthetic level, by removing various extrinsic stains, at the same time providing a feeling of "cleanliness".

Supra and subgingival scaling at fairly frequent intervals to prevent appreciable build-up. In periodontal patients this procedure will be done every 3 months. Regular control for the detection of early signs of periodontal disease. Performing prosthetic restorations with contours compatible with gingival health. Orthodontic methods for correct dental alignments that are in accordance with the anatomy of the periodontium, ease plaque control and direct occlusal forces into the tooth axis. Assessment of the diet in terms of nutrient intake, diet consistency and frequency and form of carbohydrate intake.

It is recommended to carry out prophylactic scaling at least twice a year (at a minimum interval of 6 months). The presence of tartar does not help to "support the teeth" and does not have any beneficial effects, on the contrary, it maintains gingival inflammation and worsens the course of periodontal disease. In conclusion, we must pay great attention to scaling, not to postpone or neglect it, because along with brushing techniques and regular visits to the dentist, it is part of the absolutely necessary elements of proper oral hygiene.

Prophylactic and curative treatment of the acute and chronic diseases consists in performing scaling that ensures the healing of the marginal periodontium and the oral mucosa (gingivitis, periodontitis, gingival - stomatitis), these also taking place in order to prepare an operating field that allows performing dental procedures in good conditions by the antimicrobial effect of destroying bacterial cell walls by mixing water, air, powder (baking soda, glycine) and pressure (biokinetic energy) thus reducing the amount of endotoxins present in the gingival pockets.

Aim and objectives

The aim of this paper is to highlight the importance of scaling and proper oral-dental Hygiene in periodontal health. Measures of primary or secondary prophylaxis of periodontal

disease, correlated with methods of oral hygiene education contribute to the promotion, maintenance and restoration of periodontal health.

MATERIALS AND METHODS

In this study, a group of 20 patients with an average age of 43.7 years was analyzed, 56% male and 44% female, to which a questionnaire consisting of 25 questions was applied, an oral-dental evaluation was performed, followed by scaling.

The instruments used were clamp, mirror, dental probe, periodontal probe, ultrasonic scaling device, abrasive air scaling piece: Air Flow for the supragingival portion and Perio Flow for the subgingival portion; and a set of Gracey curettes.

The data collected in individual sheets were recorded, which helped in the statistical evaluations aimed at providing a general picture of the oral health status of the adult population selected from among the patients who addressed the dentist to be solved other dental emergencies, apart from periodontal diseases. These patients were asked to complete a questionnaire to see if the patients were aware of their oral problems or not.

RESULTS

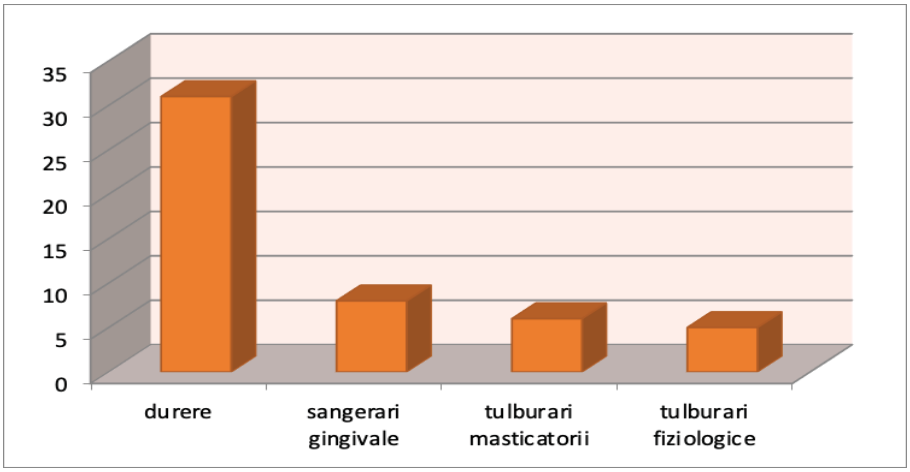

Figure 1. Reasons for presentation to the dentist

From the study, the reasons for presentation were different, 15 of the patients studied had pain as the reason for presentation, at a considerable distance following those with gingival bleeding, followed by those with masticatory and physiological disorders (Fig.1)

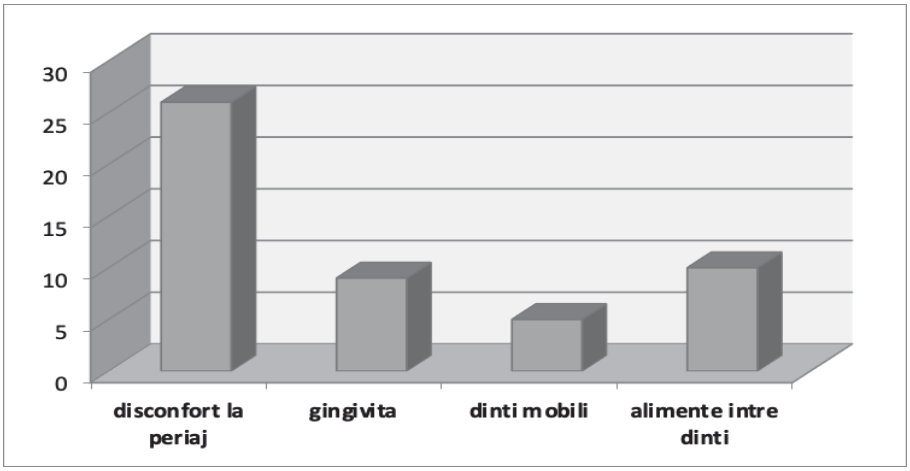

Figure 2. Symptoms in the personal history

From the study conducted, among the existing symptoms in the personal history, 11 of the people included in the study had as a symptom discomfort when brushing, at a considerable distance following those with food debris between the teeth and then those with gingivitis, followed by those with mobile teeth.

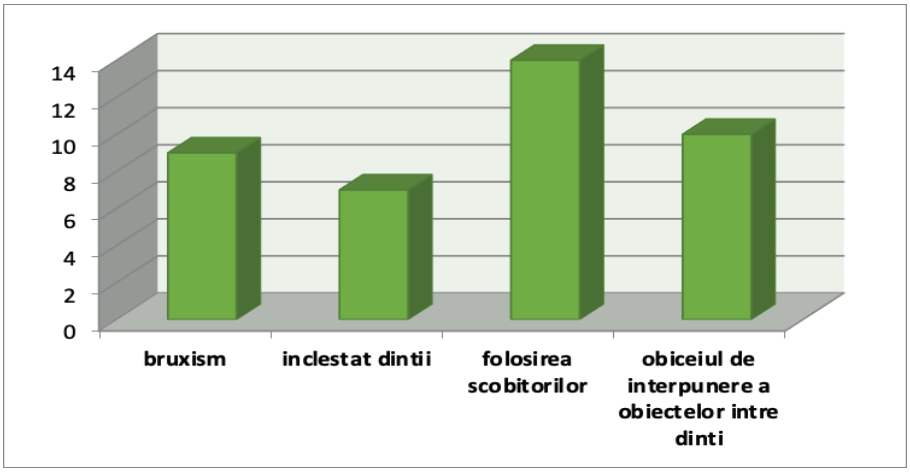

Figure 3. Vicious habits present in people included in the study

From the figure above we observe that among the most common vicious habits are the use of toothpicks followed by the habit of interposing objects between the teeth and at a considerable distance following those with bruxism and clenching of teeth.

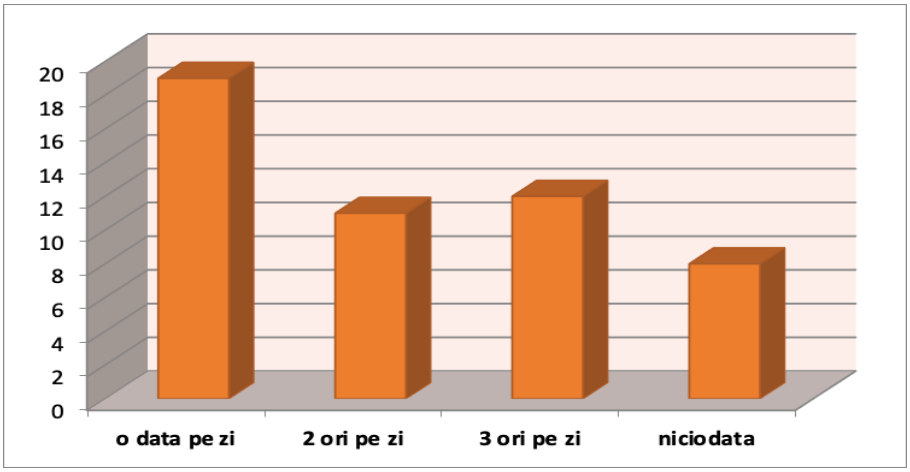

Figure 4. Frequency of tooth brushing

From the figure above we note that the frequency of tooth brushing is not one that denotes good oral hygiene, most people used to wash only once a day, followed by those who wash twice a day. The number of those who do not have the habit of having their teeth brushed at least once a day is worryingly high. Of those who wash only once a day, most of them brush their teeth when they wake up, followed by those who brush their teeth after lunch (Fig.4).

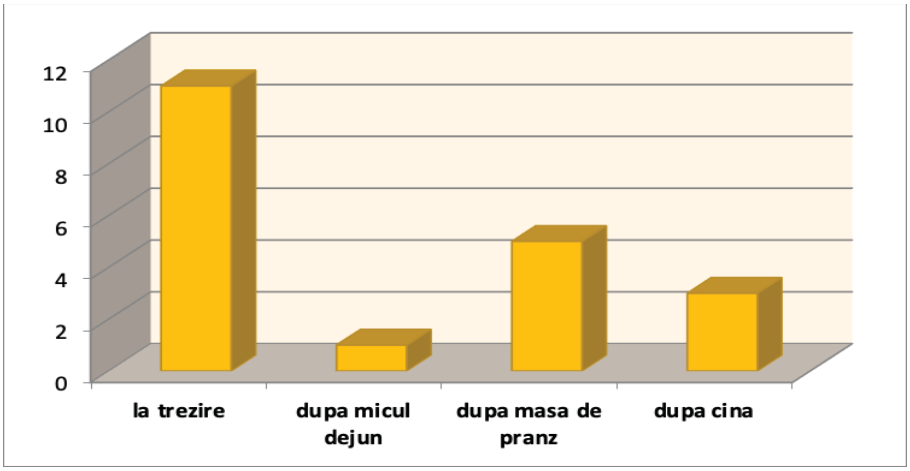

Figure 5. Period of performing tooth brushing

The average time given for tooth brushing is 1.1 minutes, most of them give one minute to this habit, and only 5 persons state that they brush their teeth for 3 minutes.

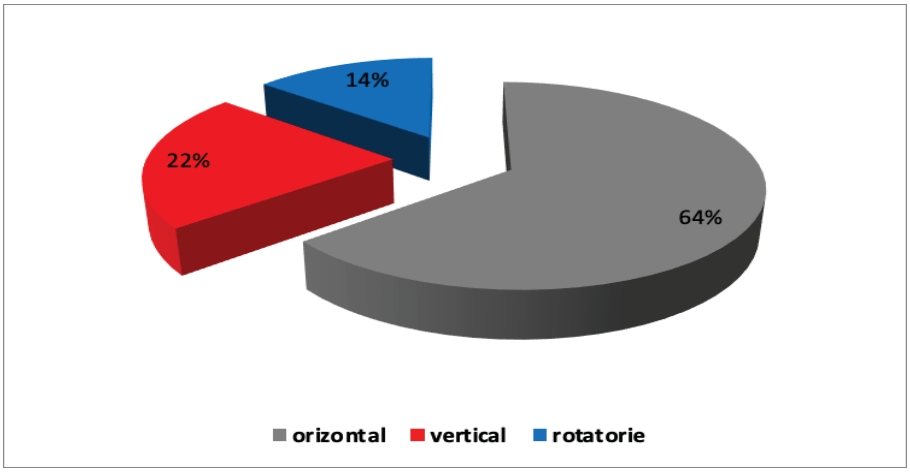

Figure 6. How to perform tooth brushing

64% of the adults in the study use the horizontal direction of tooth brushing, followed by those who wash correctly, using the vertical technique and 14 wash rotationally.

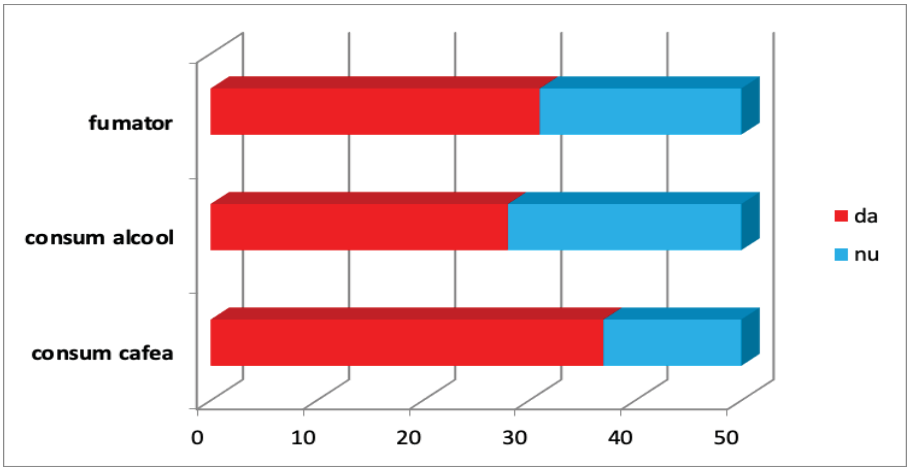

Figure 7. Consumption of vices in the studied sample

Coffee consumption is the most common vice encountered in the studied batch, followed by those who smoke and then alcohol consumption. Very often there is a combination of the three vices, or between the consumption of coffee and those who smoke.

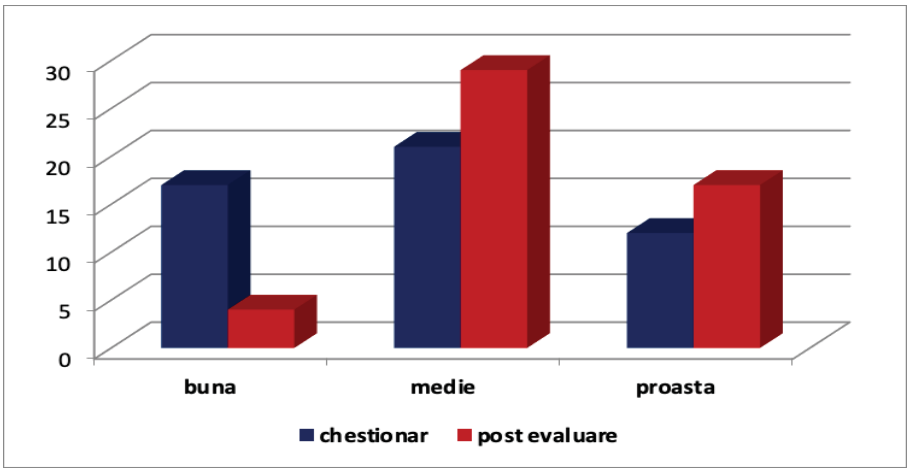

Figure 8. The oral-dental health status felt by the interviewees compared to the oral-dental assessment performed

Most of the interviewees stated that they had an average state of health, followed by those who stated that they had a good state of health, but the evaluation carried out found that the oral-dental health state was average, followed by those with bad condition and the least having a good health state. 64% of those in the study had never had a professional dental cleaning or scaling in their personal history. At the evaluation it was observed that 40% of those examined had periodontal disease.

Figure 9. Various stages of periodontal disease

The use of abrasive air descaling device in the treatment of periodontal disease has sparked many contradictory discussions. The treatment by abrasive air scaling is intended to be self-contained although at present it is considered only complementary to the conventional SRP. Studies showing very good results in the removal of plaque from the pockets with a decrease in their depth of up to 1.22 mm in 4-6 weeks, although microbiologically it is inferior to the conventional SRP.

From the patients to which we did the abrasive air scaling, 7 had plaque gingivitis, at reassessment (after 2 weeks) five of them had good oral hygiene, normal gum coloration, disappearance of gingival edema, firm consistency of the gum and absence of tartar, and the

other two had failed to acquire a correct brushing technique, so gingival inflammation persisted in them.

We also had satisfactory results also from patients in whom periodontal disease was installed at the time of presentation, after three weeks these ten no longer presented gingival edema, they presented moderate pockets, no bleeding at probing, with satisfactory oral hygiene. Of course, there were also patients who needed corrective therapy and we directed them to the specialist.

Prophylaxis of periodontal disease with the help of abrasive air scaling can be carried out with great ease, with very good results. It completely removes the supra and subgingival plaque, delays its deposition by the moderate abrasive effect it has, removing roughness on the dental surface.

Removes extrinsic coloration with great ease, in a short time, the aesthetic effect is clearly superior to that given by ultrasonic scaling, patients being very satisfied with this aspect, but also of how smooth the teeth are and of the freshness they feel after scaling.

CONCLUSIONS

Performing abrasive air scaling in patients with periodontal disease has many net advantages over conventional methods, reducing the degree of periodontitis and even healing in early periodontal disease. Among the many advantages that scaling brings in dental-periodontal health we recall special aesthetic effect, reduces or completely eliminates tartar and bacterial plaque, leaving the place clean; access to proximal areas, ditches, pits, cracks, periodontal pockets, it is much easier to make, very useful also in the identification of caries. It is not an unpleasant procedure for patients, sodium bicarbonate is biocompatible and the device being portable is very easy to use. Scaling is ideal for the prevention of periodontal disease, but in its treatment, it has been proven that at the microbiological level the conventional SRP is the treatment of choice, scaling being complementary.

From this study we observed that most patients have poor dental hygiene, brushing once a day (9 people), there are also 11 people who brush their teeth 2 / day and twelve who wash 3 / times a day. The vast majority brush their teeth upon awakening and only 4 after lunch.

The presentation to the doctor is not for aesthetic reasons, most patients with periodontal disease being smokers and or not alcoholics, neglecting their physical appearance, so that 15 of the people included in the study had pain as the reason for the presentation, at a considerable distance being followed by those with gingival bleeding in number of 5.

Periodontal prophylaxis and oral-dental prophylaxis in general play a particularly important role in the prevention of caries and periodontal diseases, periodic control and carrying out

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