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**Final Programm
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Book of Abstracts**

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A new tongue cleaning technique

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Halitosis is a very common complaint and it may affect up to one-third of the general population (Kazor, 2003). In most cases the etiology of this condition is from local oral causes. At the same time as it is often associated with the presence of periodontitis or with poor oral hygiene, in many cases there is no such link. The evidence points to the importance of the anaerobic bacteria in tongue coating which results in the clinical presentation of oral malodor. Thus, tongue cleaning gains importance as a means of halitosis management. The aim of this study is to present a new mechanical tongue cleaning method which has been used in Halitus Breath Odour Treatment Center (Brazil) since 2004, with optimal results. It was developed to help the efficient cleaning of the different tongue coating degrees, reaching the coating located in the bottom of the inter-papillae spaces and also to clean the posterior part of the tongue in class III and IV of modified Mallampati classification (MMC). Two new products were developed in order to establish better results in this technique: a tongue cleaner device with a specific design (bristles in one side of the active head and a scraper edge in the other one) and a tongue cleaning spray solution, both from Halitus® enterprise. This technique method reduces gag reflex and makes possible a very effective, comfort and harmless tongue cleaning procedure. These features justify the readily use of this technique in daily clinical practice to help patients to manage the different degrees of tongue coating even when associated with MMC class III and IV.

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**TONGUE COATING REMOVAL: COMPARISON OF THE EFFICIENCY OF 03
TECHNIQUES**

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Oral malodor is ranked among the most important patient's complaints in Dentistry and ENT clinics. Surprisingly, a problem of this magnitude, which is a high priority to population in general, has been traditionally neglected by Brazilian health professionals. However, nowadays this situation is finally changing. Researchers and professionals have been trying to reach more knowledge and scientific information about halitosis to perform a better treatment result. As currently in literature, tongue coating is the main etiology of oral halitosis, therefore, tongue cleaning means an essential step to prevent and control halitosis. The aim of this study was to evaluate and compare the efficiency of three techniques for tongue cleaning, through the comparison of the amount of removed tongue coating in each technique, in order to highlight health professionals and the population in general about the importance of this procedure. The study was independently reviewed and approved by an institutional ethical board (ERB). The three different tongue cleaning techniques were performed using a toothbrush, a tongue scraper and using a new tongue cleaning technique, with a tongue cleaner comprising bristles and a scraping edge and a tongue cleaning spray solution, both from Halitus® enterprise. Our study design used 15 healthy volunteers that were submitted to each tongue cleaning technique, performed once each 21 days. The volunteers were instructed to abstain from cleaning their tongues with any procedure, for 48 hours before the application of each technique. At each scheduled time, a dental professional performed a single standardized tongue cleaning procedure using one of the cleaning methods, inserting all the removed tongue coating into a test tube, by an air/water spray directed to a funnel. The test tube was left remaining to allow the removed tongue coating to be precipitated, than the excess of water was removed thorough a pipette and the reminiscent of coating dehydrated into a heater at 50°C. The results were obtained through the weight of the tube test with the dehydrated tongue coating (final weight) deducting the weight of the empty tube test (initial weight, previously checked). Our findings showed that the new tongue cleaning technique (combination of a tongue cleaner with brush and a scraper plus a tongue cleaning spray solution) was statistically superior in removing tongue coating when compared to the tongue scraper or the toothbrush techniques. This result was probably due to the efficacy of the technique and materials used, that permits to reach, release and remove the tongue coating located in the bottom of the spaces among the inter-lingual papillae.

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A new mouthwash evaluation on tonsilloliths and tongue coating formation

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Chronic caseous tonsillitis (CCT) arises from retained material and bacterial growth in tonsillar palatine crypts and occurs in patients with or without history of inflammatory disorders of the palatine tonsils. Clinically it is a yellowish viscous and smelly mass, which can be expelled during speech, cough or sneezes, also known as tonsilloliths or tonsillar calculi. In literature, tonsilloliths are considered a halitosis inducing-factor and clinical researches have showed that patients with CCT frequently present high levels of volatile sulfur compounds (VSCs). It affects a significant percentage of the population, more frequently in adults than in children. Surgeries, conservative or not, have been the only viable alternatives for CCT treatment. However, today there is still not, up to now, a non invasive treatment that shows satisfactory results. The objectives of this study were to evaluate the efficiency of Halitus[®] mouthwash, which active ingredients associate oxygenating and antimicrobial substances, in the decrease of tonsilloliths and tongue coating formation, both with similar etiology and composition, and the reduction of VSCs concentration. This was a double blind, placebo-controlled, randomized, clinical and experimental study which was conducted in eight weeks. It was performed with a sample of 50 volunteers, divided into two groups, presenting a CCT complaint for more than one year. The study was independently reviewed and approved by an independent ethics committee (IEC). The volunteers were submitted to three evaluations (initial, four and eight weeks), being verified the tongue coating degree (0 to 5 scale), VSCs assessment by Halimeter[®] and asked for the frequency of tonsilloliths expelled each 28 days. For the group that used the placebo solution, there was no correlation between the variables or statistical significance in the results. For the group that used Halitus[®] mouthwash, the results were significant in all analyzed questions. We concluded that the new mouthwash can be useful to prevent and control halitosis, offering advantages of low cost and being an easy ready-to-use and non invasive method for the tonsilloliths treatment, being also efficient in the reduction of tongue coating formation and VSCs concentration.

Measurement of salivary flow: a new sialometry techniques for use in daily clinical practice

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Saliva is a glandular secretion that is in constant contact with the hard and soft tissues of the mouth. Many functions have been ascribed to saliva, including its role as a lubricant that coats the mucosa and helps to protect the oral tissues against mechanical, thermal and chemical irritants. Other functions include its buffering capacity; antimicrobial activity, agglutination, initiation of digestion through - amylase; acting as a medium where tastents derived from foods are presented to taste buds; and acting as a medium for moistening dry foods to aid swallowing. All of these functions are largely protective for the oral environment. Over the years, the dental and research communities have examined the most appropriate ways to use saliva as a diagnostic tool. Salivary biomarkers have been used to assess the risk of developing oral, ovarian and breast cancers; HIV infection; Sjögren syndrome; and dental caries and periodontal diseases, as well as to detect exposure to alcohol and illegal drugs. Several methods for collecting and measuring the salivary flow have been reported and tested for validity and reproducibility. In this study, we describe a new technique for measuring stimulated whole salivary flow rate, as followed at Halitus Breath Odour Treatment Center, developed by Halitus® enterprise. It is practical, fast, easy to perform, presenting low cost and accurate results, by considering all the foam produced during the salivary assessment in the final results. This features justify the readily use of this technique in daily clinical practice.