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MOUTHWASHES PROVE EFFECTIVE IN CONTROLLING CARIOGENIC BIOFILM IN PATIENTS USING FIXED ORTHODONTIC APPLIANCES

Every orthodontist wishes to maintain patient's oral health during orthodontic treatment. Difficulties in properly controlling bacterial biofilm present in fixed orthodontic appliances are shared by all patients. Bacterial biofilm can be controlled by mechanical (tooth brush, dental floss, strips and irrigant solutions) and chemical means (mouthwashes). The effectiveness of mechanical methods has already been well described and reported in the literature; however, there is considerable doubt over the chemical methods available. In this context, Brazilian researchers conducted a systematic literature review[1] to assess the effectiveness of mouthwashes in reducing cariogenic biofilm in orthodontic patients. Results are promising, as they reveal that mouthwashes can reduce cariogenic biofilm in these patients. According to the authors, mouthwashes are best prescribed from 10 to 20 ml, twice a day, in the morning and evening.

PATIENTS REFERRED TO ORTHOGNATHIC SURGERY USE THE INTERNET TO SOLVE POTENTIAL DOUBTS

We live in a world of ongoing transformation. Every new generation is faced with new ways of relating and living in society. Undoubtedly, the greatest transformation of all has been the development and popularization of the Internet. This tool took over our homes and lives, and has made it impossible to live without it. It also plays an important role in spreading scientific knowledge on health; however, it is paramount to seek reliable sources. Many patients referred to orthognathic-surgical procedures use the Internet to dispel potential doubts which might not have been clarified by the orthodontist and/or surgeon. Thus, the following doubts arise: Why do they use the Internet? What are the most frequent doubts? In order to answer these questions, British researchers proposed a study to assess posts published by patients in an orthognathic surgery online discussion forum.[2] Results reveal that patients seek forums not only due to a potential gap in the provision of information by health care professionals, but also to supplement information regarding treatment. The authors reaffirm the need for clinicians to guide their patients to websites with reliable resources.

SELF-ETCHING AGENTS PROVE EFFECTIVE FOR BRACKET BONDING ON INTRACORONARY BLEACHED TEETH

The smile plays an important role in social interaction. Stained teeth at smiling change and hinder smile perception. An increasingly number of patients has sought dental clinics with the urge to have stained teeth bleached and aligned. In this context, the following question arises: How should orthodontic brackets be bonded with self-etching agents on intracoronary bleached teeth? This question arises due to the high concentration of oxygen present in bleaching agents, which might hinder light curing of composites. In order to answer this clinical question, Brazilian researchers conducted a study[3] to assess the shear bond strength of orthodontic brackets bonded with self-etching adhesive after intracoronary bleaching. Results reveal that the use of self-etching agents proved satisfactory for the bonding of brackets on bleached teeth. It is worth highlighting the need for further clinical trials to reaffirm the laboratorial findings.

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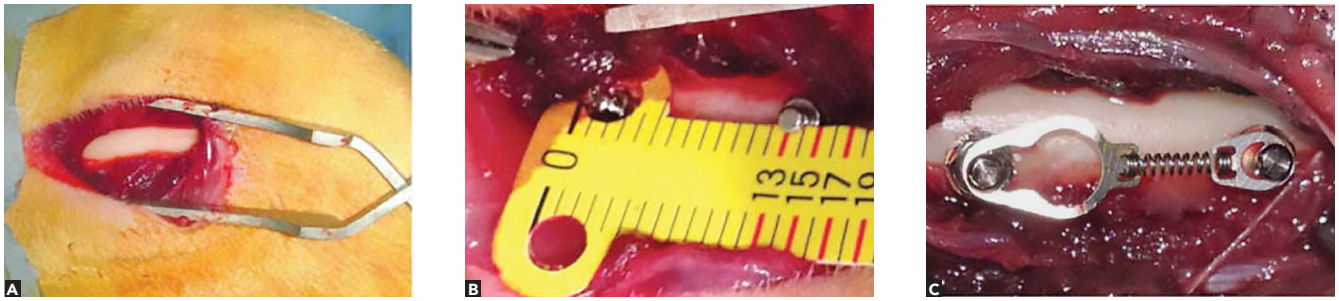

Figure 1 - **A**) Image of bone, after dissection; **B**) Measurement of distance between mini-implants; and **C**) Application of Ni-Ti coil spring to mini screws. Source: Goymen et al,[4] 2015.

LOW-LEVEL LASER INCREASES STABILITY OF ORTHODONTIC MINI-IMPLANTS

There certainly is no need to state the benefits brought by the advent of orthodontic mini-implants. These devices provide us with predictability during orthodontic anchorage. Despite several benefits, mini-implants might lose stability and, as a result, require replacement. Loss of stability leads to treatment delay and, not rarely, patient's discomfort. Research has been conducted to improve mini-implant stability. A noteworthy one has been published by an important American journal.[4] The authors aimed at histomorphometrically assessing the effects of different types of laser on the stability of orthodontic mini-implants. To this end, rabbits were used (Fig 1). Results reveal that low-level laser enhances the contact area between mini-implant and bone. The authors also highlight it as a supplementary treatment method to increase stability of orthodontic mini-implants.

ALIGNERS DO NOT PROVE EFFECTIVE IN CONTROLLING ORTHODONTIC TOOTH MOVEMENT

The ongoing search to improve esthetics of orthodontic appliances led material manufacturers to revive an old acquaintance of Orthodontics: the aligner. Introduced by Kesling in 1946, aligners were brought back to scene by material manufacturers with great thirst for profit. Nevertheless, the effectiveness of these devices is subject to discussion by orthodontists worldwide. Some are in favor of aligners which are said to allow all tooth movements; whereas others claim that these devices are recommended to specific cases of minor relapses or uncomplicated malocclusions. Amongst this cross fire, the following questions arise: Who is right? Are all tooth movements possible with these devices? In order to answer these questions, Italian researchers conducted a systematic literature review to assess the effectiveness of aligners in controlling orthodontic tooth movement.[5] Results reveal that aligners cannot control anterior extrusion, buccolingual anterior inclination and rotation of teeth. The authors also highlight the need for studies with improved methods so as to confirm the findings of their systematic review.

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