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TRANSPALATAL BARS SHOULD NOT BE USED IN CASES WHERE RIGID ANCHORAGE CONTROL IS NEEDED

Control of orthodontic anchorage is a concern in Orthodontics since its inception. With the advent of skeletal anchorage, these problems were solved, given the effectiveness of these devices to avoid undesirable orthodontic movements. Despite the popularization of skeletal anchorage, there are adherents of other auxiliary orthodontic appliances as anchoring mechanisms, such as, for example, the transpalatal bar. Notwithstanding its widespread popularity and use, doubts persist about the actual effectiveness of transpalatal bars to anchor the posterior teeth during retraction of the anterior teeth after dental extractions. Proposing to clarify this question, Canadian, Peruvian, and Brazilian researchers developed a systematic review with meta-analysis[1] in which they evaluated studies testing the effectiveness of transpalatal bars as anchoring resource. The findings stemming from this detailed study showed that transpalatal bars do not show sufficient effectiveness to anchor the posterior teeth during retraction of anterior teeth in cases of tooth extraction. Thus, considerable care must be taken when planning the best mechanism for orthodontic anchorage.

INVISIBLE ALIGNERS AND FIXED ORTHODONTIC APPLIANCES ATTAIN THE SAME LEVEL OF ROOT RESORPTION

The search for greater aesthetic orthodontic devices made the orthodontic materials' industry revive dental aligners from the early days of Orthodontics. Currently, aligners are the focus of attention and research worldwide. The financial appeal of their creators, associated with the pursuit of aesthetics by patients, has kept alive the spotlight upon them. Many are the advantages attributed to them, such as aesthetics, efficiency, and lower biological damage. But is all that is attributed to these devices scientifically proven? Seeking to answer one of these questions, Spanish, Peruvian, and American researchers developed a clinical study[2] which evaluated the frequency of external root resorption between users of fixed braces and invisible aligners. The results obtained from this study led the researchers to conclude that the predisposition to root resorption is the same for users of invisible aligners or fixed orthodontic appliances. The findings of this study reinforce the need to base our clinical approaches to scientific evidence.

SUGAR-FREE CHEWING GUM REDUCES THE USE OF ANALGESICS IN ORTHODONTIC PATIENTS

Post orthodontic maintenance pain is a common feeling among users of fixed orthodontic appliances. Studies have shown that the pain felt during orthodontic treatment has become the most important barrier to acceptance of the treatment and a major cause of its discontinuity. Despite the discomfort, pain is a normal and important reaction for the orthodontic movement process to happen. There are several therapies used in the relief and control of post orthodontic activation pain, in particular the use of painkillers and chewing gum. You must be wondering, "chewing gum?" It is just as you read, there are reports on chewing gum relieving pain after post orthodontic activation. In spite of these reports, there is lack of more scientific evidence with well-designed scientific studies. In order to fill this gap, British researchers have developed a controlled multicenter clinical trial[3] evaluating and comparing the use of analgesics (Ibuprofen) and sugar-free chewing gum in the control of post orthodontic activation pain. The results from this study showed that the use of chewing gum reduces the use of analgesics of the Ibuprofen type.

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WHEN DOUBTING BETWEEN CLOSING THE SPACE ORTHODONTICALLY OR INSTALLING A DENTURE-SUPPORTED IMPLANT, CHOOSE THE FIRST OPTION

Agenesis of the upper lateral incisors is a very common anomaly among the population. In the presence of agenesis, doubts persist as to the treatment to be chosen. The main question revolves around closing or not the space of the missing tooth. This decision is not easy and should take into account the size of the teeth, facial profile, bone quality of the site to be moved, among others. But, in the cases where both treatments are indicated, which should be conducted from the aesthetic, periodontal and functional point of view? In order to clarify this and other questions, Brazilian researchers have developed a systematic review[4] evaluating which therapy to follow when the upper lateral incisors are absent. The results from this systematic review revealed that the denture-supported prosthesis got the worst ratings regarding the periodontal index. Space closing was better rated in the aesthetic category than prosthetic replacement. The authors also point out that the presence or absence of Class I canine relationship showed no relationship with the occlusal function or signs and symptoms of temporomandibular disorders.

DRUG USED TO CONTROL CHOLESTEROL REDUCES THE RECURRENCE OF ANTERIOR SPACES

Stability of the orthodontic treatment is one of the main requirements at the end of the orthodontic treatment. After all, which patient would like to resubmit themselves to the orthodontic treatment? Unfortunately, relapse is present in our daily clinical practice and is often difficult to predict and avoid. The use of orthodontic retainers becomes our only recourse to avoid relapse. However, the non-use or, even, misuse of the retainers can compromise stability. Nowadays, research is being developed in order to evaluate drugs that can be used in order to avoid post orthodontic treatment relapse, among those, particularly Simvastatin is mentioned. Simvastatin is a drug belonging to the group of statins (Fig 1) which acts by inhibiting Hydroxymethylglutaryl Coenzyme A reductase. Indicated for the treatment of dyslipidemias, aiming to reduce the levels of (bad) LDL cholesterol and triglycerides and increase the (good) HDL cholesterol in the blood. But, would these drugs be able to act preventing the reopening of orthodontically closed spaces? In search of an answer to this question, Iranian researchers have developed a clinical study[5] in which Simvastatin was applied in the region where the space was orthodontically closed. The results of this study are enlightening and stimulating, since the application of Simvastatin reduced the reopening of anterior spaces in humans.

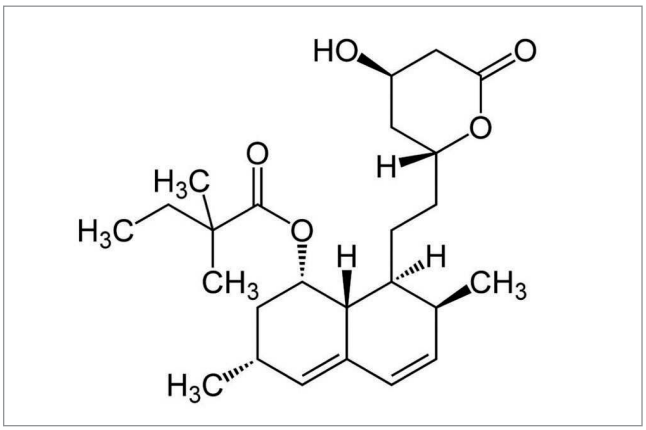

Figure 1 - Chemical Structure of Simvastatin (Source: Jahanbin et al.[5], 2016).

REFERENCES

1. Diar-Bakirly S, Feres MF, Saltaji H, Flores-Mir C, El-Bialy T. Effectiveness of the transpalatal arch in controlling orthodontic anchorage in maxillary premolar extraction cases: a systematic review and meta-analysis. Angle Orthod. 2016 Aug 9. [Epub ahead of print].
2. Iglesias-Linares A, Sonnenberg B, Solano B, Yañez-Vico RM, Solano E, Lindauer SJ, et al. Orthodontically induced external apical root resorption in patients treated with fixed appliances vs removable aligners. Angle Orthod. 2016 Aug 9. [Epub ahead of print].
3. Ireland AJ, Ellis P, Jordan A, Bradley R, Ewings P, Atack NE, et al. Comparative assessment of chewing gum and ibuprofen in the management of orthodontic pain with fixed appliances: A pragmatic multicenter randomized controlled trial. Am J Orthod Dentofacial Orthop. 2016 Aug;150(2):220-7.
4. Silveira GS, de Almeida NV, Pereira DM, Mattos CT, Mucha JN. Prosthetic replacement vs space closure for maxillary lateral incisor agenesis: A systematic review. Am J Orthod Dentofacial Orthop. 2016 Aug;150(2):228-37.
5. Jahanbin A, Abtahi M, Namdar P, Heravi F, Sadeghi F, Arab H, et al. Evaluation of the effects of subgingival injection of Simvastatin on space re-opening after orthodontic space closure in adults. J Dent Res Dent Clin Dent Prospects. 2016 Winter;10(1):3-7.