Dental Bleaching

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Managing aesthetic restorations in presence of discolored teeth is a challenge for both the clinical team and clinician, whose aim is to use methods which are as minimally invasive as possible, and materials which allow the preservation of dental tissues. Should one wish to act on the discoloration of either teeth which are to be restored, or on adjacent ones, it becomes essential to take action on dental tissues through bleaching and dental restoration using materials which allow various clinical situations to be managed such as those with different tonalities between the teeth, prosthetic materials which thus offer adequate uniformity in their results in those areas where it is necessary to mask the discoloration. The use of technology such as bleaching, and ceramic materials simultaneously can achieve excellent cosmetic results. This article intends to explain how to integrate bleaching compared to prosthetic treatment, in terms of time, in the various cases of discoloration, and what factors to consider when choosing the timing.

I) Pre-operative bleaching: Can be done on teeth which need to be restored or on those which do not have to undergo any therapeutic treatment, and may differentiate three possible situations:

- If the treatment plan includes the improvement in both arches and the restorative rehabilitation involves only a few teeth, then whitening should be done on all the teeth, whether they need restoring or not. In this case restorative rehabilitation will be performed by matching the color obtained by whitening. We can use an in-office technique (Pic 1) or an at-home bleaching one (Pic 2).

- If the tooth color of those elements which did not need to be restored is not corrected, then perform the bleaching only on those teeth needing to be restored being as less invasive as possible and using more transparent materials.

- If the discolored tooth is treated a tooth that was not bleached, the color obtained by whitening should be made. If the result is already satisfactory a more invasive restorative treatment can be avoided (Pic 3).

II) Intra-operative bleaching: It is only used on teeth needing restoration after performing the pre-operative preparation of the abutment. It should be used to enhance the color of the abutment and can be either external or internal if the tooth is non-vital. It can be done after the post-operative bleaching or re-place it when the tooth has prior composite restorations that do not allow the teeth to reach the dental tissues.

The advantage compared to preoperative bleaching is that peroxide act on the abutment and not on the outer portion of the tooth which will then be eliminated. The preliminary preparation and the choice of restorative material should be sub-sequently adjusted to the obtained result.

Even for this procedure is appropriate to wait 20 days before pre-ceeding to abutment color recognition and the adhesive cementation.

III) Post-operative bleaching: It only acts on non-restored teeth. It serves to even out natural tooth colors to that obtained by restoration if we realize there is a color difference after the final cementation.

It is carried out using a home technique with the use of personalized masks or an ‘in-office’ technique by applying the whitening gel only on the tooth to be treated. When the procedure is specifically scheduled and restorations are performed solely to enhance, it is essential that the operator knows the potential of the whitening products very well in order to predict the results. To obtain a homogeneous result you can use the whitening technique known as Differentail Method Home Care (DMHC), indicating a differential treatment-time for each individual tooth at home. Post-operative bleaching can also be used to re-treat any lapses in whitening.

References: