Dental Bleaching

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Managing aesthetic restorations in presence of discolorated 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 tissue. 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 teeth tissues through bleaching and dental restoration using materials which allow various clinical situations to be managed such as those with different toothalities 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 bleachin comparing 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 trusted dentist canal lack pin re-construction, perform the bleaching internally and externally.

After rehydration of the tooth has occurred, a reevaluation of the color should be made. If the result is already satisfactory a more invasive restorative treatment can be avoided (Pic.3-4).

II) Intra-operative bleaching: It is used on teeth needing restorative treatment after performing the pre-treatment 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 composite bleaching or re-place it when the tooth has previous composite restorations that do not allow the bleach to reach the dental tissues.

The advantage compared to preoperative bleaching is that porcelains 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.

For this procedure is appropri-ate 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 color that to obtained by restoration if we realize there is a color difference after the final cementation. It is carried out using a home tech-nique with the use of personalized masks or an ‘in-office’ technique by applying the whitening gel only on the teeth to be treated. When the procedure is specifically sched-uled 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 ob-tain a homo-geneous result you can use the whitening technique known as Differential Method Home Care (DMHC), indicating a differential treat -ment time for each individ-ual tooth at home. Post-operative bleaching can also be used to re-treat any lapses in whitening.

Bibliography:

1. Sibilla P, Logi G, Turrini R, Calura G, Fridea M.
10. Spear F, Hollows J. Which all-ceramic system is most appropriate for ma-jor esthetics? J Am Dent Assoc. 2008 Sep; 139 (Suppl) :183-243