COMMENTARY

DESENSITIZING AGENT EFFICACY DURING WHITENING IN AN AT-RISK POPULATION

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This article presents a good study of interest to general dentists and contains a current and complete list of references regarding the use of potassium nitrate to treat sensitivity during bleaching. The authors determine an approach through a proper history and preventive measures to minimize sensitivity in a group of persons who have a history of some form of sensitivity. The results of the week of "pretreatment" with the tray alone demonstrate that sensitivity can be the result of the appliance rather than the peroxide. The use of a placebo compared with an active DSA demonstrates the effectiveness of the potassium nitrate as a statistically significant way to reduce sensitivity in this at-risk group of patients. The main premise of the study and the general conclusion of the importance of a proper history and preventive treatment for sensitivity are well supported.

The few problems with this study stem from the minor details the authors omit and from the study results being confusing or misleading. We are not told why the group of 40 is not evenly split or why the groups are not evenly matched either for sex or for having the same answers to the six questions posed. Not matching the groups makes the data less helpful. For instance, the authors state that 100% of the males in the placebo group reported sensitivity, but there is only one male in that group, which is not a proper sample size to state generalities or percentages. The authors do not adequately explain the tables in the text; in addition, the small sample sizes of some groups could cause misinterpretation of the data. The study results would have been stronger if the authors had combined the data for male and female participants, as well as data from some of the other smaller groups. Table 3 should omit the single data on questions 3 and 6 owing to small sample sizes and misleading percentages (2 of 7 for 29% vs 2 of 2 for 100%); a few more subjects in the second group might have made the percentages equal. The text does not explain the wide variance of hours of treatment or the loss of 20% of the group.

In addition, the authors could have discussed in greater detail some of the positive implications from the data. First, more of the persons citing sensitivity to enter the study were females than males, which should alert the dentist. Second, a greater number of the six questions that were answered positively correlated with an increased incidence of sensitivity in the group not using the desensitizing material (see Table 3).

Dentists would do well to use these six questions when establishing a dental history and to observe the protocol for pretreatment with potassium nitrate in the tray for 30 minutes prior to bleaching application in persons who answer positively to those questions. The other option would be to use materials that already contain potassium nitrate.

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