

Effect of Application of Turmeric Extract Powder Solution on the Color Changes of Non-Vital Teeth (An In-vitro study).

Authors : Haidy N. Salem, Nada O. Kamel, Shahinaz N. Hassan, Sherif M. Elhefnawy

Abstract : Aim: to assess the effect of using turmeric powder extract on changes of tooth color with extra-coronal and intra-coronal bleaching methods. Methods: Turmeric powder extract was weighted and mixed with two different hydrogen peroxide concentrations (3% and 6%) to be used as a bleaching agent. Thirty teeth were allocated into three groups (n=10): Group A: Bleaching agent (6%) was applied on the labial surface, Group B: Bleaching agent (3%) was applied inside the pulp chamber and Group C: Extra and intra-coronal bleaching techniques were used (6% and 3% respectively). A standardized access cavity was opened in the palatal surface of each tooth in both Groups B and C. Color parameters were measured using a spectrophotometer. Results: A statistically significant difference in color difference values (ΔE^*) and enamel brightness (ΔL^*) was found between Group C and each of Groups A and B. There was no statistically significant difference in (ΔE^*) and (ΔL^*) between Group A and Group B. The highest mean value of (ΔE^*) and (ΔL^*) was found in Group C, while the least mean value was found in Group B. Conclusion: Bleaching the external and internal tooth structure with low concentrations of hydrogen peroxide solution mixed with turmeric extract has a promising effect in color enhancement.

Keywords : bleaching, hydrogen peroxide, spectrophotometer, turmeric

Conference Title : ICD 2023 : International Conference on Dentistry

Conference Location : Malaga, Spain

Conference Dates : September 04-05, 2023