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## The evaluation of whitening effectiveness of toothpastes containing blue covarine

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**Background:** Tooth discoloration is a common dental complaint in a large rate of patients. There are several methods for teeth bleaching and one of them is over-the-counter product such as toothpastes, mouthwashes and strips. Extrinsic stains can be removed by brushing with whitening dentifrices. A new whitening dentifrice containing 'Blue Covarine' claims to optically affect the color of enamel.

**Aim:** To evaluate the immediate and cumulative dental whitening effectiveness of toothpaste containing Blue Covarine on bovine teeth that seriously discolored by way of staining solutions and to compare the whitening results with the test groups.

**Material & Method:** 120 bovine teeth were used. The samples were prepared and randomly divided into six groups (n=20 in each). All specimens with the exception of the control group were stained as recommended by Stookey et al., one with modifications. The samples were brushed with four different toothpastes (three optic and one non-optic toothpastes). Teeth's color was measured at baseline, after staining, after one and seven days brushing. Color differences ( $\Delta E$ ) were measured by using reflectance spectrophotometer of Vita Easy Shade (CIEL\*a\*b\*). Color differences ( $\Delta E$ ) were analyzed by two-way Analysis of Variance (ANOVA) for repeated measurements ( $p < 0.05$ ).

**Results:** The analysis showed significant differences between toothpaste types for different parameter. In staining group; the color change was found higher for abrasive (non-optic) toothpaste than optic toothpastes for one day brushing, there wasn't any difference between the tooth paste types for seven days brushing. In control group; there was no difference in color change between the toothpaste types.

**Conclusion:** The use of optic and non-optic toothpastes showed improvement in teeth whitening. Blue Covarine based toothpastes are less effective than the non-optic toothpaste for immediate efficiency. For seven days, all the toothpastes we used removed stain and reduced the discoloration probably due to the cumulative activity but there is no difference between the toothpastes types we investigated in whitening effect.

### Biography

Esra Korkmaz Torun, after graduation from Ankara University Faculty of Dentistry, Esra Korkmaz Torun did her PhD studies in Kirikkale University Faculty of Dentistry, Department of Restorative Dentistry.

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