

● 법랑질 생검법에 의한 불소침착도에 관한 연구

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17명의 남학생(22-28세)을 선택하여 Elmex(Amine fluoride), Colgate(MFP), Lucky(MFP) 치약을 4주간 1일 2회 3분간 칫솔질을 시켜, 직전, 1주, 2주, 4주후의 상악양측절치에 침착된 불소를 정량적으로 관찰하였다. 본 저자는 구강내에서 Hotz, Mühlemann and Schait의 법랑질 생검법을 이용하여 Fluoride Electrode로 불소를 정량하고, Atomic Absorption Spectrophotometer로 Ca을 정량한 결과 다음과 같은 결론을 얻었다.

1. 2N perchloric acid에 8-9초 노출시 탈회된 법랑질의 두께는 $13.4\% \pm 0.211\mu\text{m}$ 였고, 불소치약 사용전 불소함량은 $719 \pm 22.8\text{ppmF}$ 였다.
2. 불소함유치약을 1주간 사용시에는 Elmex를 제외하고는 별 효과가 없음을 보였다.
3. 4주후 불소 침착도가 가장 높은 불소치약은 Elmex로서 약 27.8%의 증가를 보였으며, Colgate와 Lucky 치약의 경우는 약 17.7%, 14.6%였다.

● Hinokitiol이 치태 및 치은염증에 미치는 영향에 대한 연구

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전신적으로 건강하고 정상교합을 가지고 있는 29명의 치과 대학생을 선발하여 Hinokitiol이 함유된 massage cream으로 하루 두번 3분동안 치은을 massage하였을 때 Hinokitiol이 치태 및 치은 염증에 미치는 영향을 연구하기 위하여 30일에 걸쳐 실험을 하였다.

실험 2일째, 실험 5일째, 실험 10일째, 실험 20일째, 실험 30일째의 5회에 걸쳐 치태지수, PMA지수, 치주낭깊이, 치석지수, sulcus bleeding index를 측정하여 다음과 같은 결론을 얻었다.

1. 치태지수의 경우, 지수는 감소하지만 통계적 유의성은 없었다.
2. PMA지수의 경우, 지수는 감소하지만 통계적 유의성은 없었다.
3. 치주낭깊이의 경우, 지수는 감소하지만 통계적 유의성은 없었다.
4. sulcus bleeding지수의 경우, 지수는 감소하지만 통계적 유의성은 없었다.
5. 치석지수의 경우, 지수는 감소하지만 통계적 유의성의 없었다.

side treated with the subgingival curettage with the value of 4.4% ($0.05 \pm 0.01\text{cm}$)

On the other hand, gingival recession, measured in the interdental area, was occurred on the side treated with unrepositioned flap operation with the value of 21.2% ($0.16 \pm 0.01\text{cm}$), while it was occurred on the side treated with the value of 12.8% ($0.08 \pm 0.01\text{cm}$).

Unrepositioned flap operation showed more reduction of tooth mobility than subgingival curettage, while the former showed marked gingival recession, especially in the interdental area than the latter did.

So it is difficult to determine which operation procedure is better for periodontal problem ; each has its own shortcomings. Longitudinal study will be continued to compare the effect of unrepositioned flap operation and subgingival curettage.

Determination of in vivo fluoride uptake by enamel biopsy method

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A microsampling technique was used to measure enamel fluoride concentrations on the maxillary central incisors of 17 dental students before, 1, 2 and 4-week after toothbrushing with 3 fluoride-containing dentifrices (Elmex, Colgate and Lucky).

The results were obtained as follows :

1. Thickness of dissolved enamel layer exposed to 2N perchloric acid for 8-9 sec was $13.4 \times 0.211\mu\text{m}$.
The fluoride concentration of enamel before treatment was $719 \pm 22.8\text{ppmF}$
2. One week after treatment, there was no difference in the increase of F uptake between Colgate and Lucky dentifrices except Elmex
3. Four weeks after treatment, Fluoride uptake rate produced by Elmex dentifrices was higher than those obtained with Colgate and Lucky dentifrices. It was found to be approximately 27.8%, 17.7% and 14.6% respectively.

A clinical study of the effect of hinokitiol on human dental plaque and gingivitis

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The present investigation was undertaken as an attempt to study of the effect of Hinokitiol on dental plaque and gingivitis.

Twenty-nine male dental students of good health and having normal occlusion participated in this study.

The amount of plaque, calculus and gingival state were assessed at 5 times (2nd, 5th, 10th, 20th, 30th day) according to criteria of plaque index, calculus index, PMA index and sulcus bleeding index system.

The results were as follows :

1. In plaque index, index was decreased slightly but the difference was not statistically significant.
2. In PMA index, index was decreased slightly but the difference was not statistically significant.
3. In calculus index, index was decreased slightly but the difference was not statistically significant.
4. In sulcus bleeding index, index was decreased slightly but the difference was not statistically significant.
5. In pocket depth, pocket depth was decreased slightly but the difference was not statistically significant.