

없었다.

4. Ca의 濃度는 齒齦緣上 齒石이 男子에서 175.04mg/g, 女子에서 159.75mg/g이며( $p>0.1$ ), 齒緣下 齒石이 男子에서 145.74mg/g, 女子에서 123.85mg/g로 男子가 높았다. ( $p<0.0025$ )
5. Mg의 濃度는 齒齦緣上 齒石이 女子에서 10.94mg/g, 男子에서 7.27mg/g이며 齒齦緣下 齒石은 女子가 11.75mg/g, 男子가 7.55mg/g로 女子가 높았다. ( $p>0.1$ )
6. Ca과 Mg 모두 齒齦緣上과 緣下 齒石의 濃度の 比較値에 대한 有意性 檢定結果 統計學的으로 有意性이 높았다. ( $p<0.001$ )

## ● 치태성장 양상과 치은염의 진행에 관한 연구

박창양 · 이만섭 · 권영혁

경희대학교 치과대학 치주과학교실

全身 및 口腔健康狀態가 良好하고 正常咬合을 보이는 15名の 青年을 對象으로 하여, 이들의 齒苔樣相과 齒齦炎의 進行을 9週동안 研究觀察하여 다음과 같은 結論을 얻었다.

1. 齒苔는 口腔清潔後 第1週만에 急速한 成長을 보였다.
2. 齒苔의 成長은 어느 一定期間동안 增加되다가 그 以後는 多少 減少되었으며, 反面에 齒齦炎은 처음부터 마지막까지 서서히 增加되었다.
3. 齒苔의 蓄積量과 齒齦炎症度는 共に 上顎보다 下顎에서 높았다.
4. 齒齦炎症度는 右側이 左側보다 높았으나, 齒苔의 蓄積量은 左右側間에 差異가 없었다.

## ● 치주염환자의 치석내 Zn함량에 관한 연구

이정호

경희대학교 대학원 치의학과 치주과학전공

齒周疾患에 罹患되어 있으며 齒石 沈着度가 Ennever의 指數로 2度 以上인 男女 44名の 齒石을 齒齦緣上과 緣下로 分離 採取하여 Atomic Absorption Spectrophotometry로 Zn濃度を 分析하여 다음과 같은 結論을 얻었다.

1. 齒齦緣上 齒石의 平均 Zn濃度は  $46.04 \pm 32.22 \mu\text{g}/\text{mg}$ 이며 齒齦緣下는  $21.17 \pm 15.29 \mu\text{g}/\text{mg}$ 이었다. ( $p<0.001$ )
2. 年齡 增加에 따른 Zn濃度は 特異한 差異가 없었다.
3. 齒齦緣上 齒石이 緣下 齒石보다 Zn 濃도가 높았으며 두 部位의 相互比較置는 統計學的으로 有意性이 있었다. ( $p<0.005$ )
4. 男女別 Zn濃度の 比較置는 齒齦緣上, 緣下 共に 特異한 差異가 없었다.
5. 齒周疾患 罹患指數의 增加에 따라 Zn濃度も 顯著히 增加하는 趨勢였다.

role in calcification of calculus. To study the Ca and Mg contents, 22 males and 14 females patients were selected, who have periodontal disease clinically and showed more than degree 2 by Ennevers calculus surface severity index. Calculus samples were collected mainly from mandibular anterior teeth. Ca and Mg contents were analyzed with Atomic Absorption Spectrophotometry. The results were as follows.

1. The mean value of Ca concentration in supragingival calculus was 169.09mg/g and in subgingival calculus was 137.23mg/g. The difference in Ca concentration of supra-and subgingival calculus was highly significant.( $p < 0.001$ )
2. The mean value of Mg content in supragingival calculus was 7.38mg/g and in subgingival calculus was 11.26mg/g. Difference in Mg concentration of supragingival and subgingival calculus was significant.( $p < 0.001$ )
3. Ca concentration was increased by aging but Mg concentration was not so.
4. The mean value of Ca content of subgingival calculus was 145.74mg/g in male and was 123.85mg/g in female patients. Difference in Ca content of male and female was significant.( $p < 0.025$ ) The mean value of Ca concentration of supra-and subgingival calculus was 175.04mg/g in male and was 159.75mg/g in female. Difference in Ca concentration of male and female was not significant. ( $p > 0.1$ )
5. Mg concentration of supragingival calculus was 10.9mg/g in female and was 7.27mg/g in male. Mg concentration of subgingival calculus was 11.8 in female and was 7.27mg/g in male.
6. When Ca and Mg contents of supra-and subgingival calculus was compared, difference of Ca and Mg contents in supra-and subgingival calculus was significant.( $p < 0.001$ )

## Plaque growth and gingivitis development in young adults

Chang Yang Park, Man Sup Lee, Young Hyuk Kwon

Department of Periodontology, College of Dentistry, Kyung Hee University

The pattern of plaque growth and the development of gingivitis were investigated during a nine-week period. Fifteen male dental students of good general and oral health and having normal occlusion participated in this study. They were from 21 to 24 years of age.

The subjects were performed thorough-scaling, prophylaxis and oral hygiene instruction. They were instructed twice daily toothbrushing. The plaque accumulation and gingivitis degree were assessed according to the plaque index system and gingival index system(Löe, 1967).

The subjects were examined each week during nine-week period by the same investigator.

The data from clinical examination were analyzed statistically.

The conclusions were summarized as follows :

1. Dental plaque was showed a rapid growth at the first week after dental prophylaxis.
2. The growth rate of dental plaque was increased within a given period, and since then was levelled off. On the other hand, gingivitis showed a linear increase with time.
3. The amount of dental plaque and the degree of gingivitis in mandibular was higher than in maxilla.

4. The degree of gingivitis of the right side was higher than that of left, but a difference of plaque amount between right and left side was not significant.

## A study of Zn concentration in calculus of periodontal patient

Jung Ho Lee

Department of Periodontology, College of Dentistry, Kyung Hee University

The supragingival and subgingival calculus samples were collected from 44 subjects, 27 males and 17 females, who suffered from periodontal revealed more than degree 2 by Ennever's Calculus Surface Severity Index.

The concentration of Zn in their calculus was analyzed with an Atomic Absorption Spectrophotometry.

The results as follows :

1. The mean value of Zn concentration in supragingival calculus was  $46.04 \pm 32.22 \mu\text{g}/\text{mg}$  and was  $21.17 \pm 15.29 \text{mg}/\text{mg}$  in subgingival calculus. ( $P < 0.001$ )
2. There was no corelationship between aging and Zn concentration
3. The concentration of in supragingival calculus was higher than that in subgingival calculus. Comparison between two types was significant. ( $P < 0.005$ ).
4. No significant difference between supragingival and subgingival calculus was showed when Zn concentration in both sexes was compared.
5. The concentration of Zn showed the tendency of a linear increase with rising of Periodontal Disease Index(Ramfjord)

## Uptake of fluoride by enamel from Bifluoride and MFP dentifrices

Seong Heui Son

Department of Periodontology, School of Dentistry, Seoul National University

A microsampling technique was used to quantitatively compare enamel fluoride concentrations on the maxillary central incisors of sixty male dental students before, 4 weeks, 8 weeks and 12 weeks after toothbrushing with bifluoride(MFP with NaF) containing dentifrices(Fluocaril) and other MFP-containing dentifrices(Lucky)

The results were obtained as follows ;

1. Four week treatment showed much higher F uptake in Fluocaril group than in Lucky group.
2. Eight weeks after treatment, enamel F uptake rate of Fluocaril group was also approximately twice as much as that of Lucky group.
3. Twelve weeks after treatment, there was no apparent difference in the increase of F uptake between