● 치은열구 출혈지수에 관한 임상적 연구 -치태지수, 치은염증지수, 치은열구 삼출액 및 치주낭의 깊이와의 상관관계-

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朝鮮大學校 齒科大學 附屬 齒科病院에 內院한 全身疾患이 없는 男子 患者 205名을 硏究對象으로 上顎 全治 脣側部位에서 齒苔指數, 齒齦裂溝 出血指數, 齒齦炎症指數 및 齒周囊의 깊이를 測定하고, Periotron과 Ninhydrine 發色反應을 利用하여 齒齦裂溝 滲出液을 定量한 後 齒齦裂溝 出血指數와 相互 聯關性을 檢索하므로써 다음과 같은 結果를 얻었다.

1. 齒齦裂溝 出血指數에 대한 齒苔指數의 變化는 各 段階別로 統計學的 有意性 認定할 수 없었고, 相關關係도 微弱하였다($r=0.48$: $P>0.1$).
2. 齒齦裂溝 出血指數에 대한 齒齦炎症指數는 全 區間에서 統計學的 有意性을 認定할 수 있었고($P<0.05$), 相關關係도 매우 높았다($r=0.94$; $P<0.05$).
3. 齒齦裂溝 出血指數에 共히 區間別 統計學的 有意性은 一部에서만 認定되나, 相關關係는 높게 나타났다.($r=0.91$; $P<0.05$, $r=0.90$; $P<0.05$).
4. Periotron 測定値와 Ninhydrine 發色反應値 사이에는 相關關係가 가장 높았다($r=0.98$; $P<0.01$).

● 치주질환 환자의 치은연상 및 치은연하 치석의 무기질 함량에 관한 연구

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齒石沈着度가 2度 以上인 23~68才의 齒周疾患 疾患 68名을 對象으로 이들에게서 採取한 齒齦緣上 齒石 100例와 齒齦緣下 齒石 108例를 上·下顎 및 前·臼齒部로 區分하여 이들에 含有된 Ca, Mg, Na, Zn, Cu, Mn 및 Fe는 atomic absorption spectrometry로 P는 molybdenic acid에 依한 定量法으로, PO_4^{-3}, CO_3^{-2} 및 有機質의 含量은 infrared spectrometry로 定量分析하여 다음과 같은 結論을 얻었다.

1. Ca과 P의 平均濃度는 各各 199.55±57.36μg/mg과 116.60±31.52μg/mg이었으며 Ca : P 比率은 1.77±0.45였다.
2. Mg, Na, Zn, Cu, Mn 및 Fe의 平均濃度는 各各 7.46±3.75μg/mg, 6.89±3.46μg/mg, 8.76±6.24 mg/mg, 0.41±0.47mg/mg, 0.54±0.55μg/mg 및 5.91±3.95mg/mg이었다.
3. PO_4^{-3}, CO_3^{-2} 및 有機質의 平均濃度는 各各 87.75±29.11μg/mg, 11.66±5.65μg/mg 및 64.66±26.25μg/mg이었다.
4. Ca, P, Mg, Cu 및 CO_3^{-2}, 有機質의 平均濃度와 Ca : P 比率은 齒齦緣上 齒石과 齒齦緣下 齒石에서 거의 同一하였다.
5. Na, Mn의 平均濃度는 齒齦緣上에서 보다 齒齦緣下 齒石에서 多少 높았으나 統計學的 有意性은 없었다.
6. Zn, Fe와 PO_4^{-3}의 平均濃度는 齒齦緣下보다 齒齦緣上 齒石에서 有意하게 높았다.

suggest that occurrence of spirochetes and gingival tissue neutrophils may be associated with the initiation of bleeding upon probing.

A clinical study on the sulcus bleeding index correlation to gingival index, plaque index, gingival crevicular fluid and pocket depth

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Two hundred and five male patients without systemic diseases were selected to study the correlation among the several clinical parameters on the area of labial aspect of anterior segment of upper dentition.

The periodontal condition of each selected patient was checked by Plaque Index(PI : Silness et al.), Sulcus Bleeding Index(SBI : Mühlemann et al.), Gingvial Index(GI : Löe et. al.), Pocket Depth (PD) and Gingival Crevicular Fluid(GCF).

The amount of GCF was evaluated by Periotron(Harco Electronics, Canada) and by color reaction of Ninhydrine on the periopaper strip(harco Electronics, Canada).

The correlations between SBI and the other clinical parameters were statistically analyzed.

The results were as follows :

1. PI scores had no significant difference corresponding to SBI scores, and correlation between PI and SBI was weak positive($r=0.48$; $P>0.1$).
2. GI scores had a significant difference corresponding to SBI scores and strong positive correlation ($r=0.94$; $P<0.05$).
3. The amount of GCF was not increased in proportion to SBI scoore, but correlation between GCF and SBI was positive($r=0.91$; $P<0.05$: Periotron, $r=0.90$: $P<0.05$: Ninhydrine).
4. The correlation between the Periotron and Ninhydrine score was most positive($r=0.98$; $P<0.01$).
5. PD was also increased corresponding to SBI score($r=0.94$; $P<0.05$).

It is noticed that the several clinical parameters selected in this study have a strong positive correlation, but their values are not multipled correspond with each score to evaluate the perioontal health.

The inorganic composion of supragingival and subgingival dental calculus

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The purpose of the present study was to determine the amount of inorganic components in supragingival and subgingival dental calculus from known areas of the oral cavity and to comepare the content and distribution of inorganic component in two kinds of dalculus.

100 supragingival samples and 108 subgingival samples were collected from 68 patients, in the age of 28 to 68 years, who suffered from periodontal disease and revealed more than degree 2 by

Ennever's Calculus Surface Severity Index. They are classified into the following respective groups ; Mandibular Group, Maxillary Group, Anterior teeth Group and Posterior teeth Group.

The concentration of Ca, Mg, Na, Zn, Cu, Mn and Fe in calculus was analyzed by atomic absorption speectrometry, and that of P by quantitation with molybdenic acid, and that of PO_4^{-3}, CO_3^{-2} and other organic substances by quantitation with infrared spectrometry.

the results were as follows :

1. The mean values of Ca and P concentration in calculus were 199.55± 57.36μg/mg and 116.60± 31.52 μg/mg respectively, and the Ca/P ratios were 1.77± 0.45.
2. The mean values of Mg, Na, Zn, Cu, Mn and Fe concentration in calculus were 7.46± 3.75μg/mg, 6.89± 3.46μg/mg, 8.78± 6.24μg/mg, 0.41± 0.47μg/mg, 0.54± 0.55μg/mg and 5.91± 3.95μg/mg respectively.
3. The mean values of PO_4^{-3}, CO_3^{-2} and other organic substances concentration in calculus were 87.75 ± 29.11μg/mg, 11.66± 5.65μg/mg, and 64.66± 26.25μg/mg respectively.
4. The Ca/P ratios and the mean values of cooncentrations of Ca, P, Mg, Cu, CO_3^{-2} and organic substances in the supragingival and subgingival calculus were almost same.
5. The mean values of Na and Mn concentration in subgingival calculus were roughly higher than those ones in supragingival calculus, buut there was no statistical significance.
6. The mean values of Zn, Fe and PO_4^{-3}, concentration in the supragingival calculus were significantly higher than those ones in the subgingival calculus.
7. According to the area, the Ca/P rations in the subgingival calculus of the Maxillary posterior teeth area is the hghest(1.85) and that in the supragingival calculus of the Mandibular posterior teeth area is the lowest(1.73). The total amount of the inorganic substances is the highest in the supragingival calculus of the Maxillary posterior teeth area, and the lowest in the subgingival calculus of Maxillary anterior teeth area.
8. The difference, according to age and sex, among the mean values of the concentrations of the various inorganic substances in the calculus could not be significant.

Serological study on the cross-reactivity of *bacteroides gingivalis, bacteroides intermedius and bacteroides asaccharolyticus* by indirect immunofluorescence and enzym-linked immunsorbent assay

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previous studies have been performed for the sero-identification of selected species of Bacteroides by immunofluorescence antibody techniques and enzyme-linked immunosorbent assay using species-specific rabbit antisera to B. gingivalis, B. intermedius, and B. melaninogenicus. However, these studies