## ● 만성치은염 조직의 S-100 단백 양성세포의 분포에 관한 면역조직학적 연구

함일성 · 이재현
단국대학 치주대학 치주과학교실

1. 22례에서 모두 LC, IC가 관찰되었으나 부위마다 나타나는 수는 상당히 다양하여 전혀 발견되지 않는 경우부터 LC, IC가 각각 11개, 26개까지 발견되는 경우도 있었다.
2. 상피에서는 LC는 세포체가 적갈색으로 농염되고 3-4개의 수지상 돌기를 가지며 많은 세포들이 극세포층에 존재하였다.
3. 진피의 IC는 상피의 LC에 비하여 세포체가 좀더 큰 성상의 세포로 수지상 돌기는 명확하게 관찰되지 않았다. 염색상은 다양하여 상피의 LC에 비하여 더 농염된 경우가 많았으나 아주 미약한 경우도 관찰되었다.
4. 염증정도 "0"인 부위에서는 LC(평균 0.8개), IC(평균 0.3)이 거의 발견되지 않았다. 10부위중 4곳에서는 전혀 LC를 관찰하지 못하였으므로 7부위에서는 IC가 나타나지 않았다.
5. 염증의 증가할수록 LC와 IC의 평균수는 증가하여 각각 평균치가 2.14와 1.55, 2.96과 3.00, 4.17과 4.04로 나타나서 염증의 중증도에 비례함을 보이고 있다.

## Analysis of inogranic components and heavy metal concentrations in dental calculus

Chi Hyang Chung, Man Sup Lee, Young Hyuk Kwon
Dept. Of Periodontology, College of Dentistry, Kyung Hee University

The supra-and subgingival calculus were collected from 63 subjects, 32 males and 31 females, who suffered from periodontal disease and revealed more than degree 2 by Ennever's calculus surface severity index. They were classified with the following respective groups according to their residence and job : Urban, Rural and Industrial group, and also classified with & without prosthesis group.

The inorganic components and heavy metal concentrations in dental calculus were analyzed by Electrothermal atomic absorption spectrophotometry.

The results were as follows :

1. The inorganic components of dental calculus consists mainly of Ca, P, Mg, K, Na and traces of Fe, Si, Cu, Sr, Al, Au, Sn, Cr, Mn, B, Ni, Ag, Zr, Tielements.
2. The heavy metal concentration ns of Pb, Cr in industrial area were higher than average value($P<0.05$, $P<0.01$), and Pb, Cr & Al in rural were lower than average value($P<0.01$).
3. According to the areas, there was the difference in the average heavy metal concentration and Pb & Al in urban were higher than rural($P<0.01$, $P<0.05$), Pb, Al, Cr and Cd in rural were lower than industrial area($P<0.01$, $P<0.05$).
4. According to age & sex, there were not showed statistically significance in heavy metal concentrations.
5. The heavy metal concentration of Cr with prothesis showed statistically significance than without prosthesis.($P<0.05$).

## Immuno-histological study on distribution of S-100 protein positive cells in the chronic gingivitis

Ill Sung Ham, Jae Hyun Lee
Department of Periodontology, College of Dentistry, Dan Kook University

The author observed the Langerhans cells in human inflamed gingiva in relation to the intensity of inflammation. The detection of Langerhans cells was accomplished by immunohisto-chemical staining for S-100 protein.

The Langerhans cells were calculated by light microscope in 3 or 4 of 200 magnified field and meaned the total number of calculated cells by observed number of field. The S-100 positive cells in connective tissue were called as indeterminate cell(IC). The degree of inflammation was depended on the intensity of inflammatory cell infiltration and was designated as degree 0,1,2,3.

The results were as follows.

1. For this study, 22 cases in human gingival were selected for observing Langerhans cells and

indeterminate cells.

The number of Langerhans cells.

2. The Langerhans cells were stained as reddish brown and had 3 or 4 dendrites and they were almost located in the prickle cell layer.
3. The cell body of indeterminate cell in dermis was larger than the Langerhans cells and had dendrites. The stainability of indeterminate cells which were stained intensly or lightly was extremly various.
4. In case of degree 0 of inflammatory reaction, the Langerhans cells(average number 0.8) and indeterminate cells(average number 0.3) were scarcely found. The Langerhans cells were not found in four of ten field and the indeterminate cells were not found in seven of the fields.
5. The number of the Langerhans cells and indeterminate cells was increased along with the intensity of inflammation and they were 2.14 and 1.35 in degree 1, 2.96and 3.00 in degree 2 and 4.17 and 4.04 in degree of 3.

   Although the number of Langerhans cells and indeterminate cells was extremly various in accordance with the degree of inflammation, there are several factors which influence the number of Langerhans cells and indeterminate cells in gingiva.