

● 정상 치은 상피의 전자현미경적 연구

최 상 목

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치은 상피의 미세구조는 다른 상피, 특히 피부와 비슷하기는 하나 약간의 구조적 차이가 있다. 그러므로 저자는 정상치은 상피의 미세구조를 관찰하였다. 정상치은을 가진 4사람에게서 치은 조직을 채취하였다.

그 관찰 결과는 다음과 같다.

1. 상피 기저 세포는 핵이 둥글며 대개 2개의 핵인을 가지고 있다.
2. 상피 기저 세포는 비교적 간단한 구조의 세포질로 되어 있으며 그 세포질에는 많은 Tonofilaments가 Bundles로서 Tonofibrils을 이루고 있다.
Tonofibrils은 Desmosome의 Attachment Plaque로 향하여 구부러져 있으며, Cytoskeleton의 기능을 하고 있다.
3. 인접 상피 세포들은 주로 Desmosomes으로 연결되어 있고, 상피 세포와 결합 조직간에는 Hemidesmosomes이 부착을 도와주고 있다.

● Dilantin 치은증식증 치은상피의 미세구조에 관한 연구

최상목 · 안성모

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Epilepsy의 치료제로서 Anticonvulsant인 Dilantin Sodium이 많이 사용되고 있다.

Dilantin Sodium의 복용으로 인한 부작용으로 Dilantin치은증식증이 많이 보고되고 있다.

저자는 증식된 치은상피의 미세구조를 정상 치은상피와 비교, 관찰하였다.

서울대학교 치과대학 부속병원 치주과에 내원한 Dilantin 치은증식증 환자 5사람과 정상치은을 가진 2사람에게서 각각 치은조직을 채취하였다. Dilantin 치은상피에서 다음과 같은 관찰결과를 얻었다.

정상치은상피에 비해서

1. 세포간극은 팽대되어 나타났으며, 그 간극속에는 부정형의 단백질양 물질이 다수 침윤되어 있었다.
2. desomes의 감소를 볼 수 있었다.
3. 기저세포의 형태가 편평하게 변형되었으며, 그 핵막은 불규칙하게 변형되어 나타났다.
4. 핵과 세포질의 부피의 비에서 1/4~1/5로 세포질이 핵에 비해서 다소 비후된 양상을 나타내고 있었다.

An electron microscopic study of normal human gingival epithelium

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The fine structure of gingival epithelium resembles that of epithelial cell elsewhere, notably skin, however some structural differences do exist.

The purpose of this study, therefore, is to observe the ultrastructure of normal gingival epithelium. Specimens are obtained from 4 persons exhibited a clinically normal gingiva.

The observations are as follows :

The basal cell consists of an ovoid nucleus, has almost two nucleoli, with few indentations and a relatively simply structured cytoplasm.

The cytoplasm characteristically contains tonofilaments which are formed into bundles called tonofibrils. Tonofibrils converge toward the attachment plaque of desmosomes, possibly serving a cytoskeletal function.

Desmosomes are common joined between adjacent cells, and hemidesmosomes may assist adhesion between epithelium and connective tissue.

Ultrastructural study on human gingival epithelium of Dilantin gingival hyperplasia

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The purpose of this study was to compare the ultrastructure of dilantin human gingival epithelium with normal.

Specimens were obtained from 5 patients with the clinical diagnosis of dilantin gingival hyperplasia and from 2 persons exhibited a clinically normal gingiva.

The results of observations were as follows in comparison with normal gingival epithelium :

There was a widening of the intercellular spaces filled with amorphous proteinlike substances and a rarefaction of desmosomes as a result of inflammation. It was characterized by a flattening of basal cell with a invaginated nucleus. For a basal cell, the nucleus to cytoplasmic ratio was about $1/4 \sim 1/5$ on a volumetric basis.

A study on the degree of plaque accumulation on severity of gingivitis

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Two hundred middle and high school children, 13 to 16 years of age, were examined for evaluation of plaque accumulation and severity of gingivitis.

After scoring according to mühlemann's method for plaque accumulation the following results were obtained.

1. Total mean plaque index score was 1.67 ± 0.76 , total mean sulcus bleeding index score 0.68 ± 0.38 .
2. According to the area of mouth, facial surfaces of upper molar segments showed the most gingival inflammation, those of lower bicuspid segments the least.
3. The buccal surface of upper first molar showed the severest plaque accumulation, the palatal surface of upper first molar and labial surface of lower anterior teeth the least.
4. The severity of gingivitis was related to the amount of plaque accumulation.

Comparative study of the effect on gingival inflammation and accumulation of dental plaque by modified Bass and modified Stillman technique of tooth brushing

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In 20 dental students, an experimental study was performed to compare the effects between the Modified Bass technique and the Modified stillman technique of toothbrushing.

The results obtained are summarized as follows.

1. The S.B. index scores between on the day of 1 of 48 in the Modified Bass technique showed a decrease from 0.32 ± 0.17 to 0.19 ± 0.09 .
2. On the other hand, in the modified Stillman technique, the S.B. index scores showed a mild decrease from 0.35 ± 0.17 to 0.30 ± 0.18 .
3. The plaque index scores in both techniques of toothbrushing did not reveal remarkable variations and only showed mild increases.
4. In the Modified Bass technique, the decrease of the S.B. index score and the increase of the plaque index score indicated a contradiction.
5. Perhaps the decrease of the S.B. index was the influence of preventing invasions of bacteria and their toxins through gingival sulcus owing to cleanse the gingival sulcus effectively.
6. And the increase of the plaque index is influenced by low stiffness of the bristle. Accordingly, the brush that used in this study should be evaluated its quality.