

● PYODONTYL 치약에 대한 임상적 연구

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본 연구는 치은염에 대한 permethol을 포함한 치약 (0.100gm/100gm)의 소염효과를 알아보기 위해, 단순치은염이 있고 4mm이하의 치주낭이 있으며 실험기간 동안 항생제나 소염제를 투여받지 않은 40명을 대상으로 4주간의 세정기(washout period)를 거친후, permethol이 포함된 치약군과 permethol이 없는 치약군 20명을 double-blind method로써 사용케한 후 4주와 8주 후에, 염증정도를 평가하기 위해 치은 지수(Gingival index : Loe and Silness), 치은열구액 측정(Gingival fluid measurement)과 생검을 통한 치은의 세포학적 연구로서, 호산성 지수(Acidophilic index), 핵농축 지수(Pyknotic index)와 각화 지수(Keratinization index), 그리고 치태지수(Plaque index)에 대한 실험군과 대조군 간의 실험 결과를 통해 다음과 같은 결론을 얻었다.

1. 28일과 56일 사이에 치은 지수와 치태 지수에는 실험군과 대조군 사이에 중요한 차이가 없었다.
2. permethol이 포함된 치약을 사용한 군에서 치은액 측정에 있어 28일과 56일 사이에 중요한 차이가 있었다.
3. 세포학적 기준에서 볼 때, permethol이 포함된 치약군에서 28일과 56일 사이에 핵농축 지수와 각화지수에 중요한 차이가 있었다.

이러한 결과로 볼 때, permethol이 함유된 치약은 단순 치은염에 뚜렷한 치료효과가 있다고 볼 수 있다.

● Fibronectin의 국소도포가 치주조직의 재 부착에 미치는 영향

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Fibronectin의 국소도포가 성견의 치주조직의 재 부착에 미치는 영향을 관찰하기 위하여 5마리(숫놈)의 성견을 이용하였다.

13주간 면 분사를 이용하여 실험적으로 치주염을 야기시키고, 상악 전치부의 순측에 modified Widman flap술식을 시행한 후, 40개의 실험 치아들을 대조군(외과적 술식만 시행한군)과 실험군(1mg/ml의 포화 fibronectin용액을 치근표면과 치은판막에 도포한 군)으로 나누었다. 치근표면에 high speed bur를 이용하여 홈을 만들어 참고점으로 이용하였다. 외과적 술식을 시행한 7일, 21일, 40일 후에 실험치아 및 치주조직을 포함하고 있는 조직절편을 채취한 후, 통법에 의해 조직학적 처리를 한 다음 Hematoxylin & Eosin으로 염색하여 검경한 결과 대조군과 실험군에서 모두 치근 표면을 따라 치근단축으로 상피의 전이가 일어나 신생 결합조직부착이 일어나지 않았다.

본 실험결과는 fibronectin물질 자체가 신생 결합조직부착을 도모하기 위하여 결정적으로 중요한 물질은 아니고, 구연산과 같은 다른 화학물질 등을 이용하여 치근면과 이에 인접하고 있는 결합조직이 적절한 표면 특성을 가질때에야 비로써 매개체로서 역할을 할 수 있다는 가능성을 제시해 주었다.

Scanning electron microscopic study on the plaque bacteria in tooth surface of periodontal pocket with adult and rapidly progressive periodontitis in human

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The purpose of this study was to evaluate the differences between attached and unattached plaque bacteria and whether the bacteria could invade in the periodontal tissue, and is true, which types are pioneer bacteria by looking at the root surfaces through scanning electron microscope 24 bicuspid were selected from diagnosed clinical healthy, rapidly progressive periodontitis and adult periodontitis. After examined the proportion of bacteria, morphology of subgingival plaque form the pockets of the patients by dark field microscope, Author extracted, perpared the teeth and examined through scanning electron microscope.

The result of this study were as follows :

1. The volume of subgingival paque bacteria of rapidly progressive periodontitis tooth surfaces were much more than that of healthy but less than that of adult periodontitis.
2. The spiral and rod types of bacteria were found in the epithelial attachment and periodontal ligament of root surface with rapidly progressive periodontitis.
3. There were various types of bacteria mixed in the epithelial attachment of root surfaces with adult periodontitis.
4. Various types of bacteria in the periodontal ligament were accumulated near the inflammatory cell in adult periodontitis.
5. The pioneer bacteria of rapidly progressive periodontitis and adult periodontitis were seemed spiral and rod type of bacteria.
6. The composition of unattached plaque differs from that of unattached plaque in the periodontal pockets.

A clinical study on the toothpaste "PYODONTYL"

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Forty volunteers were selected to evaluate the anti-inflammatory effects effects of the toothpast with permethol to gingival tissue. To assess the inflammatory condition of the gingiva, Plaque Index(Silness & Loe), Gingival Index(Loe & Silness), measurement of gingival fluid and cytological study with millipore filter were performed.

All of the evaluation were carried out by the double-blind method.

Statistics indicate that Gingival Index is not so credible as gingival fluid measurement. The gingival fluid flow rate decreased significantly in active group gives some interesting suggestions. It is impor-

tant to notice that this improvement is not related to the decreasing Plaque Index but to anti-inflammatory effect of permethol. Two cytological parameters(Pyknotic Index and Keratinization Index)showed an improving status of gingival health.

In other hand, none of intolerance symptom has been noticed during the whole periods of the study.

From these results, it can be concluded that toothpaste with permethol has a definite therapeutic bennefits to simple gingivitis.

The effect of topically applied fibronectin on the restoration of periodontal attachment

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A histologic study was done to investigate the effect of fibronectin treatment on the restoration of periodontal attachment apparatus by topical application.

Inducing the experimental periodontitis with cotton flosses for 13 weeks in five adult dogs and performing the modified Widman flap on the labial side of eight upper incisors, forty teeth were divided into two groups : I control group (Surgery alone, II) experimental group (fibronectin : 1mg/ml, 4min). Radicular notches were made as reference points at the apical extent of the instrumented area using a high speed bur under water cooling.

Block sections including the entire tooth and periodontal tissues were obtained after 7, 21 and 40 days, routinely processed and stained with hematoxylin and eosin.

Control and experimental sections showed epithelial migration along the root surfaces, separating them from the adjacent connective tissue and thus preventing new attachment.

Within the limit of this study, the present results suggest that fibronectin itself is not the critical agent for success in obtained new connective tissue attachment.

Clinical evaluation of microcrystalline hydroxyapatite toothpaste in the control of dentin hypersensitivity

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The purpose of this study was to observe the relief effect of hypersensitivity in the toothpaste containing Microcrystalline hydroxyapatite for the subject of eighty persons of both sexes, who complained hypersensitivity.

After 2 weeks and 4 weeks, comparison of relief effect between Microcrystalline hydroxyapatite