

비교하여 다음의 결론을 얻었다.

1. β -glucuronidase의 활성값은 실험부와 대조부가 각각 0.180 ± 0.060 : 0.128 ± 0.030 liberated phenolphthalein mg/hr으로 차이의 통계적 유의성이 있었다($P < 0.01$).
2. 치주임상지수, 치은열구액의 양, β -glucuronidase의 활성치에 따라 실험부와 대조부를 비교시 모두 상당한 유의성이 있었다($p < 0.01$).
3. 각 치주임상지수와 치은열구액의 양 및 효소활성과의 관계에서 치은 열구액 양과 치태지수, 치은열구 출혈지수 및 치주낭 깊이, 효소활성과 치태지수, 치은열구 출혈지수등은 통계적으로 매우 유의한 상관관계를 보였고($p < 0.01$), 치은열구액 양과 효소활성과도 유의한 상관관계를 보였으나($p < 0.05$), 효소활성과 치주낭 깊이는 유의한 상관관계를 나타내지 못했다($p > 0.05$).
4. Grade에 따른 출혈지수와 효소활성 및 치은열구액 양은 통계적으로 유의한 증가를 보였다(치은열구액 양 : grade III ; < 0.01 ; 효소활성 : grade IV ; $p < 0.5$).
5. Grade에 따른 치주낭 깊이의 치은열구액 양의 비교시 I 에 비해 IV가 유의한 값의 상승을 보였고($p < 0.01$), 효소활성과의 비교시 유의한 차가 없었다($p > 0.05$).

● 특수 세치제와 불소이온도입법에 의한 치아 지각과민증 개선효과에 관한 비교 연구

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전북대학교 병원 치과에 내원한 환자중 치주질환으로 인해 치석 제거술 및 치근 활택술, 치은 소파술 및 외과적 시술을 시행한 후 지각과민 증상을 보이는 90명을 무선적으로 3군으로 분류한 후, 환자의 상악 6전치에 전기적인 자극과, 압력, 화학적 자극을 가하여, SMFP, 10% strontium chloride 및 불소이온도입법을 시행한후의 지각과민 개선 효과를 비교 분석하여 다음과 같은 결론을 얻었다.

1. Sodium monofluorophosphate와 10% strontium chloride를 함유한 세치제를 사용한 군과 2% NaF 이온도입법을 시행한 군등 3군 모두 지각과민상태가 개선된 것으로 나타났다($p < 0.05$).
2. Sodium monofluorohosphate와 10% strontium chloride를 함유한 세치제 군에 비해 2% NaF 이온도입법에 의해 도포한 군에서 상대적으로 가장 우수한 개선효과를 나타내었다($p < 0.05$).
3. 압력에 대한 지각과민의 개선은 불소 이온도입법 시행군에서 다른군에 비해 우수하지만 통계적으로 유의한 차이는 나타나지 않았다($p > 0.05$).
4. 100% sucrose용액을 사용한 평가에서 시간에 따른 지각과민의 개선은 나타나지만 세 실험군 사이에 통계적으로 유의한 차이는 없었다($p > 0.05$).

An experimental study on β -glucuronidase in gingival crevicular fluid of dogs with periodontal disease

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Analysis of an enzyme in gingival crevicular fluid is considered as a valuable diagnostic method for periodontal inflammation. The relationship between enzyme activity and clinical parameters can also be employed to evaluate the periodontal status. The object of this study was to present the diagnostic value of the β -glucuronidase in gingival crevicular fluid during periodontal breakdown. This study was examined with 4 dogs weighed 13-15kg, being ligated with wire at third and fourth premolars of both jaws while contralateral teeth were brushed three times a week as a control. Two months after the ligation, when periodontitis was induced, the gingival crevicular fluid was collected every one week to be calculated. The following results were obtained by comparison of enzyme activity with clinical parameters: sulcus bleeding index, plaque index, pocket depth.

1. The optical density of β -glucuronidase activity were 0.180 ± 0.060 at the experimental sites and 0.128 ± 0.303 at the control sites ($0 < 0.01$).
2. The relationships between clinical indices and periodontal units, and β -glucuronidase activity were statistically significant ($p < 0.01$), while correlation between β -glucuronidase activity and pocket depth was less significant ($p < 0.05$).
3. As the grade of sulcus bleeding index was increased, the periodontal units and β -glucuronidase activity were increased significantly (periodontal unit: Grade III: $p < 0.01$, IV: $p < 0.01$, β -glucuronidase activity: Grade IV: $p < 0.05$).
4. As the grade of pocket depth was increased, periodontal units increased significantly ($p < 0.01$).

A comparative study on the efficacy between dentifrices and iontophoresis in treatment of dentinal hypersensitivity

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Numerous therapeutic agents and methods have been developed in treatment of dentinal hypersensitivity. However, dentinal hypersensitivity has been a difficult problem to resolve both dentist and patient. Although many studies have been demonstrated the effect of fluoride, strontium chloride, and fluoride with iontophoresis, any comparative results have not been established in Korea.

The purpose of this study was to compare the efficacy of three treatment methods in treatment of dentinal hypersensitivity. A total of 90 patients were assigned into three groups according to randomized block design. First and second groups were supplied home-use dentifrice which containing sodium monofluorophosphate and 10% strontium chloride each other. Third group was applied 2% sodium fluoride with iontophoresis. New dentifrices and toothbrushes are supplied to patients

at baseline and 4 weeks. All patients were evaluated by double-blind technique after periodontal treatment and at 4, 8 weeks. Dentinal hypersensitivity was measured by subjective questionnaire, response to saturated 100% sucrose solution, tactile pressure stimulus, and electrical stimulus.

It was suggested that all treatment methods were effective in treatment of dentinal hypersensitivity, but fluoride with iontophoresis was more effective than two dentifrices groups ($p < 0.05$). Strontium chloride was more effective than SMFP in treatment of dentinal hypersensitivity ($p < 0.05$). Responses to 100% sucrose solution and tactile pressure were improved as time interval, but significant difference was not found between treatment groups.

An immunohistochemical study of cytokeratin and fibronectin in disease human gingiva

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To determine the effect of pocket formation on differentiation of pocket epithelial cells distribution of fibronectin in subepithelial connective tissue, the gingival tissues with deep periodontal pocket over 6mm were excised through operation and gingivectomy in patients with adult periodontitis and idiopathic gingival hyperplasia, in department of periodontics, infirmary of school of dentistry, Chosun university.

Each specimen sectioned in 4~6 μ m thickness was stained with hematoxyline-eosin stain and masson's trichrome stain, and followed by immunohistochemical stains for cytokeratin in epithelium and for fibronectin in connective tissue.

In the immunohistochemical stain for evaluation of differentiation of epithelial cells, two monoclonal antikeratin antibodies, 34 β b4 which was specific for cytokeratin of 68Kd and 34 β e12 which was specific for cytokeratin of 56Kd/68Kd, were used as primary antibodies, and biotinylated goat antimouse antibody was used as secondary antibody. After treatment with 0.1% trypsin for 30 minutes at room temperature, specimens were stained by Avidin-Biotin-peroxidase Complex(ABC) method under wet condition.

For the immunohistochemical localization of fibronectin in connective tissue by ABC method under wet condition, rabbit immunoglobulin to human IgG and biotinylated goat antirabbit IgG were used as primary and secondary antiserum, respectively.

By light microscopic observation, following results were obtained :

1. In oral gingival epithelium, the immunoreactivity of cytokeratin to 34 β b4 was strong positive in the upper spinous layer and the granular layer, and reactivity to 34 β e12 was positive in all cell layers with mild positive reaction of the basal cell layer. The corneal layer showed mild positive or negative reaction to both monoclonal antibodies.
2. In the inflammatory pocket and the hyperplastic pseudopocket epithelium, the immunostain reactivity of cytokeratin was stronger positive in the superficial layer and the intermediate layer than in the basal cell layer and the spinous layer.