

2. IL-1 β 의 농도가 증가할수록 양 세포 공히 모든 합성능에서 감소 양상을 보였다.
3. 치주인대세포에서 Indomethacin 투여 유무에 따른 합성능 측정시 Indomethacin 투여군에서 모든 합성능이 감소 양상을 보였다.
4. 치주인대세포에서 IL-1 β 의 작용에 대한 Prostaglandin의 영향을 규명하기 위해 Indomethacin을 투여해 본 결과, IL-1 β 의 농도가 증가함에 따라 모든 합성능에서 큰 변화가 없었다.

● 성인성치주염에 있어 치주질환 활성화도 예측지표로서의 탐침출혈의 진단학적 민감도에 관한 임상적 연구

전수경 · 김성조 · 최점일
부산대학교 치과대학 치주과학교실

성인성 치주염 환자 22명의 278개 치아, 1666부위를 대상으로 탐침출혈의 치주질환 활성화도 예측지표로서의 진단학적 민감도에 관해 임상적으로 연구한 결과 다음과 같은 결론을 얻었다.

1. 실험 2개월간 2mm 이상의 치주조직 부착도 소실이 나타난 활성화부의 비율은 3.24%였다.
2. 전체의 감수성은 0.70, 특이도는 0.50이었고 가양성비율은 0.47, 가음성비율은 0.30이었다.
3. 치주낭심도에 따른 감수성 및 특이성은 1-3mm의 치주낭에서는 0.59, 0.64였고, 4-6mm의 치주낭에서는 0.86, 0.24였으며, 7mm 이상의 치주낭에서는 0.72, 0.11이었다.
4. 탐침출혈은 성인성 치주염에 있어 치주질환의 활성화도 예측지표로서 유용치 못하였다.

● 난치성 치주염의 진단에 관한 임상 및 미생물학적 연구

전우석 · 김성조 · 최점일
부산대학교 치과대학 치주과학교실

본 연구는 난치성 치주염 환자의 진단되는 활성화부와 진단되지 않는 비활성 부위 사이의 배양가능한 치주병원균의 비율에 있어서, 유의한 차이가 있는지를 관찰하고자 시도되었다. 전체 8명의 난치성 치주염 환자 중 18부위(7활성부위, 11비활성부위)에서 임상 및 미생물학적 소견을 비교 연구하였다.

활성 부위는 한달 간격의 임상 검사에서 최근 3개월내에 3mm이상의 부착소실을 보이는 부위로 결정되었다. 그 결과 다음의 결론을 얻었다.

1. 8명의 난치성 치주염 환자 18부위에서 활성화부와 비활성 부위는 각각 5명의 환자7부위, 6명의 환자 11부위였으며 그리고, 평균 탐침부착 소실량은 각각 3.57 ± 0.73 mm, 0.73 ± 1.05 mm였으며, 평균 탐침 치주낭 심도는 각각 7.14 ± 1.80 mm, 6.73 ± 1.35 mm였다.
2. *P. gingivalis*의 발현 빈도 및 비율은 활성화 부위에서 통계학적으로 유의성 있는 차이를 보였다. ($P < 0.01$)
3. *P. gingivalis*를 제외한 치주 미생물에 있어서는 활성화 부위에서 비활성 부위에 비해 특이성을 발견하지 못하였다.

Effect of IL-1 β on collagen production by human gingival fibroblast and periodontal ligament cell J. M. Lee, et al.

J. M. Lee, et al.

Dept. of Periodontology, School of Dentistry, Kyungpook National University

The degradation of collagenous attachment from the cementum to the alveolar bone in the event that defines destructive periodontitis.

Direct etiologies of the above event are bacteria or bacterial toxic materials and indirect etiologies are cytokines that it produce in stimulated host cell by bacteria or bacterial toxic materials. One of these cytokines, IL-1 β has various catabolic and inflammatory effects, it induces procollagenase activation and prostaglandin production and degrades proteoglycan and collagen.

This study describes the effects of IL-1 β by Human gingival fibroblast and Periodontal ligament cell in cell derived from explants of human periodontium.

The results were as follows :

1. In collagen production activity, the periodontal ligament cell was shown to be greater than the gingival fibroblast.
2. As the concentration IL-1 β was increased, the periodontal ligament cell and the gingival fibroblast showed a tendency to decrease in all synthetic activity.
3. On each concentration of IL-1 β , collagen production and percent of collagen were greater in periodontal ligament cell when compared with that of gingival fibroblast.
4. When both Indomethacin and IL-1 β were injected into the periodontal ligament cell, increasing the concentration of IL-1 β , PDL cell was shown to be unchanging synthetic activity almostly.

So, it was thought that IL-1 β affected the collagenous and noncollagenous protein production activity in the human gingival fibroblast and the periodontal ligament cell and affected prostaglandin production in periodontal ligament cell.

A clinical study on diagnostic usefulness of bleeding on probing as a predictor of periodontal disease activity in adult periodontitis

S. K. Jun, et al.

Department of Periodontology, College of Dentistry, Pusan National University

The present study was undertaken to evaluate the usefulness of bleeding on probing in predicting destructive periodontal disease activity in adult periodontitis. Each tooth was divided into sextants and total 1666 sites have been monitored in 22 patients with adult periodontitis. The attachment level measurements were recorded at 2-month interval to detect destructive periodontal disease activity. The number of sites that showed or did not show activity and the absence or presence of

bleeding on probing before in monitoring period were calculated.

The obtained results were as follows :

1. Of 1666 sites examined at baseline and at 2 months, 54 sites(3.24%) showed attachment loss of more than 2mm.
2. The sensitivity and specificity were 0.70, 0.53, and false positive and false negative ratio were 0.47, 0.30 for total sites.
3. The sensitivity and specificity values for different levels of pocket depths, were 0.59 and 0.64 for pocket depths 1–3mm, 0.86 and 0.24 for 4–6mm, 0.72 and 0.11 for >6mm.
4. Bleeding on probing was not useful in predicting the periodontal disease activity at individual sites.

Clinical and microbiological study on the progression of refractory periodontitis

W. S. Jeon, et al.

Dept. of Periodontology, College of Dentistry, Pusan national University

This study was performed to see if there are any differences in the % of cultivable periodontopathic microorganisms between the progressing sites and nonprogressing sites of refractory periodontitis patients. 18 sites (7 sites showing progression and 11 sites showing nonprogression) of total 8 refractory periodontitis patients were compared of the clinical and microbiological findings. progression of sites was determined by the loss of attachment greater than 2mm within the most recent 3 months observed by repeated measurements on a monthly basis.

The results indicated there is a statistically significant difference in the proportion of *Porphyromonas gingivalis* in the total cultivable microorganisms. We concluded that *Porphyromonas gingivalis* may play a important role in the progression of refractory periodontitis sites.

Transmission electron microscopic study of the periodontal tissue changes on ligature induced periodontitis

K. S. Cho, et al.

Dept. of Periodontology, College of Dentistry, Yonsei University

The purpose of this study was to evaluate the ultrastructural alterations of the periodontal tissue on ligature-induced periodontitis.

Silk ligatures were placed circumferentially at the cemento-enamel junction as a means of enhancing plaque formation and provoking development of progressive periodontal tissue breakdown.

Placement of ligatures and sacrifice schedules were arranged so that the specimens were obtained