

4. 탐침 출혈과 화농의 존재는 질환 활성도의 예측지표로서 유용하지 못하였다.

● 견사결찰 유도 치주염의 치주조직 변화에 대한 투과전자 현미경적 연구

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치주염에서 치주염으로의 진행과정시 치주조직의 미세구조의 변화를 관찰하기 위함이다. 실험 시작전 1주일간 치태조절을 시행한 후 성견 8마리중 7마리는 실험군으로 상악 1, 2, 3소구치의 치경부에 견사 결찰을 시행하고 치태축적이 되도록 방치하여 실험 치주염을 유발하였으며 1마리는 대조군으로 견사결찰을 시행하지 않고 실험시작때 희생시켰다.

실험 시작 후 실험군을 3, 7, 14, 28, 56, 70, 84일째에 희생시켜 실험부위에서 투과 전자현미경관찰을 위한 조직을 적출한 후 시간경과에 따른 미세구조의 변화를 관찰한 결과 다음과 같은 결론을 얻었다.

1. 치아와 상피세포 경계부의 기저판은 3일 소견에서 부분적으로 소실이 되기 시작하였으며 7일 이후에는 관찰할 수 없었다.
2. 상피세포와 결합조직 경계부의 기저판은 3일부터 부분적으로 소실되기 시작하여 28일까지 증가되는 양상을 보이다가 56일 이후에는 대부분이 소실되었다.
3. 상피간극의 확대가 실험 3일부터 관찰되었고 7일부터 현격한 증가가 시작되어 84일까지 증가되는 양상이 관찰되었다.
4. 상피세포질내의 공포화현상이 3일부터 미약하게 관찰되었고 7일부터 증가되기 시작하여 56일 이후에는 전 상피세포층으로 확대되어 세포의 변성이 관찰되었다.
5. 결합조직내의 염증세포의 침윤은 다형핵 백혈구가 3일부터 임파구는 7일부터 증가되는 양상을 보였으나 14일 이후에는 형질세포가 주를 이루고 있었고 56일 이후에는 변성된 형질세포가 다수 관찰되었다.
6. 섬유아 세포의 변성과 교원섬유의 소실이 전실험기간동안 시간이 경과함에 따라 확산되는 양상을 보였다.

● 군복무중인 성인 남자의 치주상태에 관한 연구

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20대 남자 250명을 무작위 추출하여 치태지수, 치석지수, 치은지수, 부착치는 폭경, 치주낭심도, 치은퇴축량을 조사한 결과, 다음과 같은 결론을 얻었다.

1. 평균 치태지수는 1.96, 치석지수는 1.43, 치태지수는 1.7였고, 평균지수는 상악보다 하악이 높고, 치아유형별로는 제1대구치, 중절치, 측절치, 견치 순서로 높았다.
2. 평균 부착치은의 폭경은 4.0mm였고, 평균폭경은 하악보다 상악이 컸고, 치아유형별로는 중

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

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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

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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

3, 7, 14, 28, 56, 70, and 84 day after ligature placement and non-ligated specimens were used as control.

Each specimen was prepared for electron microscopic observation.

The results were as follows :

1. The basal lamina between the enamel and epithelium had lost its continuity partially at 3 day and it was hardly observed after 7 day.
2. The basal lamina between the epithelium and connective tissue had started to disrupted its continuity at 3 day and increased gradually until 28 day. Most of its continuity was hardly observed after 56 day.
3. Widening of intercellular space was observed at 3 day and markedly increased from 3 day to 84 day.
4. Vacuolization in the epithelium was observed weakly after 3 day, but markedly increased from 7 day and most of epithelial cells appear degenerated with vacuoles of their cytoplasm after 56day.
5. In the aspects of the inflammatory cell infiltration in the connective tissue, polymorphonuclear leukocytes wear increased from 3 day and the lymphocytes from 7 day, but plasma cells were predominant after 14 day.
6. The alteration of fibroblast and loss of collagen fibers were increased through the whole period of this study.

Epidemiological analysis on periodontal status of military population

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The puropose of this epidemiological analysis was to evaluate the periodontal status of Korean young adults(twenties) in order to provide detail & baseline data for frequence of periodontal disease. Two hundred and fifty young adults, aged 20–29 years, were selected by random sampling.

Dental visit, scaling treatment, education, income, toothbrushing frequence & method were checked, and plaque index(Löe and siness), calculus index(Ramfjord), gingival index(Löe and siness), attached gingiva width, probing depth, gingival recession were measured.

The obtained results were as follows.

1. Average plaque index(1.96), calculus index(1.43), gingival index(1.7) were higher in mandible than maxillar. It was most prevalant in 1st molar.
2. Average attached gingiva width(4.0mm) was wider in maxillar than mandible. It was most prominent in lateral incisor.
3. Pocket depth(>4mm) was distributitron 42% subject, it was higher in mandible than maxilla and most prevalant in 1st molar.
4. Gingival recession(>1mm) was distributed in 94% subject, it was higher in mandible than maxilla, and most prevalant in canine.