● 치은염시 면역글로블린과 보체의 혈청농도에 관한 연구

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慶熙大學校 齒科大學 附屬病院 齒周科에 來院한 患者中 齒齦炎으로 診斷된 20名을 調査群으로 하고 正常齒齦을 가진 20名을 對照群으로 하여 이들의 末梢血液內의 血淸 IgG, IgA, IgM, C_3 및 C_4를 Laser Nephelometer(Hyland Co, U. S. A)를 利用하여 그 濃度를 測定한 結果 다음과 같은 結論을 얻었다.

1. 血淸 IgG 濃度는 齒齦炎患者群에서 正常對照群보다 多少 높게 나타났으나 統計學的 有意性은 없었다.
2. 血淸 IgA 濃度는 齒齦炎患者群에서 正常對照群보다 多少 낮게 나타났으나 統計學的 有意性은 없었다.
3. 血淸 IgM 濃度는 齒齦炎患者群에서 正常對照群보다 有意하게 높았다.
4. 血淸的 補體 C_3와 C_4 濃度는 齒齦炎患者群과 正常對照群에 어떤 差異도 發見되지 않았다.
5. 齒齦炎時 血淸 IgM 價를 除外한 免疫글로블린과 補體의 血淸 價에는 어떤 變化도 보이지 않았다.

● Tetracycline이 견사결찰로 발생된 백서 치주질환에 미치는 영향에 대한 실험적 연구

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저자는 웅성 백서 50마리를 5군으로 나누어 Tetracycline을 제1군은 실험전 1일 부터, 제3군은 실험 당일 부터 매일 미정맥에 주사하고, 제2군은 실험전 1일 부터, 제4군은 실험 당일 부터 매일 구강내에 도포하고 나머지 한 군은 대조군으로 사용하였으며, 실험군 및 대조군을 실험 당일 부터 4−0굵기의 견사를 상악 제1대구치와 제2대구치 사이에 결찰하여 실험적 치주질환을 발생시킨 후, 각 군을 실험 개시 제1, 3, 5, 10, 20일 째에 희생시키고, 광학 현미경 하에서 치은 상피및 결체 조직의 염증 세포의 변화를 관찰하여 다음과 같은 결과를 얻었다.

1. Tetracycline국소 도포군(2, 4군)보다 정맥 주사군(1, 3군)에서 염증 세포의 출현이 적었다.
2. Tetracycline의 견사결찰 하루 전 투여군(1, 2군)과 견사결찰 즉시 투여군(3, 4군)사이의 염증 세포의 변화는 큰 차이가 없었다.
3. 모든 실험군에서 PMNL은 3일까지 증가하다가 5일 이후에는 차츰 감소하는 현상을 보이며, 임파구는 5일 이후 부터 완만하게 증가하였으며, 형질 세포는 변화가 거의 없었다.
4. Tetracycline정맥 주사군(1, 3군)에서는 실험 3일 이 후 부터 염증 세포들의 출현빈도에 큰 변화를 관찰할 수 없었다.

were immediately centrifuged and supernatant fluid were collected.

Serum concentrations of immunoglobulins and complement were assayed by Laser Nephelometer. (Hyland Co., U. S. A.)

The results were as follows ;

1. The mean of serum IgG levels was slightly increased in gingivitis patients when compared with the normal subjects, but the difference was not significant.

2. The mean of serum IgA levels was sligntly decreased in gingivitis patients when compared with the normal subjects, but the difference was not significant.

3. The mean of serum IgM levels was significantly increased in gingivitis patients when compared with the normal subjects($P < 0.025$).

4. The means of serum C_3 and C_4 did not show significant differences between gingivitis patients and normal subjects.

The experimental study of the effects of tetracycline on the silk ligature induced periodontal disease in the rat

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The purpose of this study was to observe the changes of the inflammatory cells after/with systemic and local tetracycline administrations in the rats whose gingivae were induced periodontal disease by the silk ligature.

In this experimental study, 50 rats were used and divided into one control and four experimental groups, 10 rats for each group.

Tetracycline was daily administered systemically on tail vein to the Group 1 from the day before the experiment's beginning, and Group 3 from the day of its beginning, and daily applicated topically to the Group 2 from the day before its beginning, and Group 4 from the day of its beginning.

4 − 0 black silk were ligated to the lst molar of all of the rats.

The rats were sacrificed on the lst, 3rd, 5th, 10th and 20th day. The experimental areas were excised out and original slides were prepared with thickness of 7μm and stained with Hematoxyline-Eosin and Masson's trichrome. Inflammatory cells (polymorphonuclear cells, lymphocytes, and plasma cells) were counted at a magnification of x 400 by light microscopy. The data were treated by standard deviation, 1-way ANOVA, and Tukey procedure.

The results were as follows.

1. In Group 1 and 3(systemically administered tetracycline), inflammatory cells were less evident than in Group 2 and 4(topically applicated).

2. There were no singnificant differences in changes of the inflammatory cells between Group 1 and 2(tetracycline administered from the day before the experiment's beginning)and Group 3 and 4(administered from the day of its beginning).

3. In all of the experimental groups, PMNLs were increased until the 3rd day and decreased from

the 5th day, lymphocytes were increased slowly from the 5th day, and plasma cells did not changed significantly during the experiment.

4. In the Group 1 and 3(systemically administered tetracycline), there were no significant variations in the number of inflammatory cells after the 3rd experimental day.

The effects of subgingival curettage on gingival inflammatory cell distribution of human chronic periodontitis

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The purpose of this study was to observe the effects of subgingival curettage on gingival inflammatory cell distribution of human chronic periodontitis. Ten adult patients with chronic periodontitis were served prior to subgingival curettage as controls and after 7 days following subgingival curettage as experimentals. Biopsy specimens were obtained from the interdental gingiva of each subject.

Each biopsy specimen was placed into 10% formalin, embedded in paraffin, sectioned and stained with Hematoxylin-Eosin.

Count was made at a magnification of 400. The results are as follows :

1. The lymphocytes were increased in the experimental group compared with the control group ; the rate of increase is 12% in connective tissue subjacent to the epithelium and 9.8% in central connective tissue.
2. The plasma cells were decreased in experimental group compared with the control group ; the rate of decrease is 12% in connective tissue subjacent to the epithelium and 9.6% in central connective tissue.
3. The macrophages were slightly decreased in experimental group compared with the control group.
4. The fibroblasts were increased in experimental group compared with the control group ; the rate of increase is 13.2% in connective tissue subjacent to the epithelium and 18.1% in central connective tissue.

The comparative study for effects of various mechanical plaque control methods on plaque and gingival inflammation

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The purpose of this study was to compare the effectiveness of the various mechanical plaque control methods, brushing(Exp. 1 group), brushing+water pik(Exp. 2 group), brushing+tooth pick(Exp. 3 group), brushing+dental floss(Exp. 4 group) on the plaque accumulation and gingival inflammation.