

● 외상성교합이 실험적 치주질환\*, 진행에 미치는 영향에 관한 임상 및 세균학적 연구

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2마리의 성견에서 염증 및 외상성 교합을 일으킨 군과 염증만 일으킨 군을 임상적 평가와 치태세균 형태평가 및 혐기성 세균 배양을 이용하여 비교연구한 결과 다음과 같은 결론을 얻었다.

1. 염증이 있을 때 외상성 교합은 loss of attachment에 큰 영향을 미치지 않았다. ( $P>0.05$ )
2. 대조군에 비해 실험군은 치은 열구액의 양이 많았다. ( $P<0.05$ )
3. 비운동성 세균은 4주에서는 대조군과 실험군 사이에 큰 차이를 보이지 않았으나 ( $P>0.05$ ), 8주에서는 실험군에서 유의성있게 큰 차이를 나타내고 있다 ( $P<0.05$ )
4. 호기성, 혐기성, 흑색집락성 Bacteroides균주의 수와 비율에 있어서 실험군 및 대조군에서 큰 차이를 보이지 않았다. ( $P>0.05$ )

전체 Spirochetes의 비율은 실험기간중 실험군과 대조군에서 ( $P>0.05$ ) 유의성 있는 변화를 보이지 않고 있으나 large spirochetes만이 실험군에서 유의성있는 증가를 보이고 있다. ( $P<0.01$ )

실험 4주째 운동성 세균의 비율은 실험군이 대조군에 비해 매우 많이 나타났으나 ( $P<0.01$ ), 실험 8주째에는 운동성 세균, curved rod, long rod의 비율은 실험군과 대조군 사이에 유의성있는 변화를 볼 수 없었다.

5. 실험 8주째에 실험군에서는 B. gingivalis가, 대조군에서는 B. intermedius가 나타났으나 대조군과 실험군 사이에 통계학적인 유의성은 없었다. ( $P>0.05$ )

## Clinical and microbiological study on the effect of traumatic occlusion for progression of experimental periodontitis in mongrel dogs

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The purpose of this research was to examine the clinical and microbiological study on the effect of traumatic occlusion for the progression of ligature induced periodontitis in mongrel dog.

Periodontitis was developed in the 4 lower 4th premolar of 2 mongrel dogs by silk-stainless steel wire ligature.

After 8 weeks, ligature induced periodontitis. Orthodontic band was applied on experimental teeth but was not used on control teeth.

During 8 weeks of experimental period, clinical indices, bacterial culture were taken at baseline and monthly thereafter.

No oral hygiene was performed during whole period of experimental research.

The results were as follows;

1. No difference was found between traumatized and nontraumatized teeth on loss of attachment.
2. No difference was found between traumatized and nontraumatized teeth on total count and ratio of anaerobic, aerobic, blackpigmented *Bacteroides* ( $P > 0.05$ )
3. Gingival crevicular fluid was increased in traumatized teeth as compared with nontraumatized teeth ( $P < 0.05$ )
4. On the phase-contrast microscopic examination of non-motile and cocci, no difference was found between traumatized and nontraumatized teeth in 4 weeks ( $P > 0.05$ ), but difference was found in 8 weeks ( $P < 0.01$ )
5. During experimental period, no difference was found between traumatized and nontraumatized teeth on the ratio of total spirochetes, small spirochetes, and medium spirochetes ( $P > 0.05$ ) but difference was found between traumatized and nontraumatized teeth on the ratio of motile rod ( $P < 0.01$ ), curved rod and long rod ( $P < 0.05$ ) in 4 weeks after experiment. But no difference was found between traumatized and nontraumatized teeth in 8 weeks after experiment ( $P > 0.05$ )
7. In 8 weeks, *Bacteroides gingivalis* was appeared on traumatized teeth and *Bacteroides intermedius* was appeared on nontraumatized teeth, but no statistical differences was found between traumatized teeth and nontraumatized teeth.