

● Polymeric Reinforced Zinc-Oxide Eugenol이 치근분지병소 치유에 미치는 영향에 관한 연구

김충수

연세대학교 대학원 치의학과

저자는 6마리의 잠종 성견을 대상으로 하여, 12주 동안 교정용 탄성사를 상·하악 소구치 치경부에 결찰, 고정하여 치근분지병소를 동반한 치주염을 야기시켰으며 분지병소에 polymeric reinforced Zinc-Oxide Eugenol을 충전하여 실험2군으로, composite resin을 충전하여 실험1군으로, 충전물을 넣지 않은 대조군으로 각각 구분하여, 시간 경과에 따라 1주, 2주, 4주, 5주, 6주 후에 실험동물을 희생시켜서 충전물에 대한 치은조직의 반응과 치유과정에서의 부착 상피와의 재 부착관계를 연구하여 다음과 같은 결론을 얻었다.

1. 초기의 각 군은 유사한 임상적 소견을 보였으나, 실험1군에서 2주 후 부터 변연치은에 발적과 부종이 나타나서 6주까지 지속되었으며, 대조군과 실험2군은 자연 치유양상을 보였고, 1주 후의 실험1군과 실험2군에서의 염증세포 침윤정도는 유사한 양상을 보였으나, 실험2군에서는 시간 경과에 따라 계속적인 감소를 보인 반면, 실험1군에서는 2주 후 부터 나타난 염증세포 침윤 확장이 6주까지 계속 되었다.
2. 실험2군에서는 전 실험기간 동안 교원섬유의 변화가 없었으나, 실험1군에서는 계속적인 감소를 보였으며, 실험2군에서는 각화되지 않은 열구상피가 전 실험기간 동안 관찰되었으나, 실험1군에서는 2주 후 부터 열구상피와 결체조직의 일부에 케양이 형성되어 6주까지 계속 되었다.
3. 실험2군의 충전물 표면에는 전 실험기간 동안 상피세포가 부착되어 있었으며, 시간 경과에 따라서 부착된 상피세포가 성숙되는 양상을 보였으나, 실험1군 표면에서는 상피세포가 부착되는 양상을 보이지 않았으며, 단지 상피 잔사로 보이는 물질이 불규칙하게 부착되어 있었다.
4. 실험2군의 2주후 충전물 표면에서 fiber와 충전물 사이의 연결을 보였으나, 이를 제외한 전체 실험군에서 충전물과 fiber간의 연결은 없었다.
5. 치근면과 충전물 사이의 부착상태는 실험1군과 2군 모두에서 기밀하지 못했다.

● Bioceramic제제의 성견 치조골결손부의 재생에 관한 실험적 연구

박준봉 · 이만섭

경희대학교 치과대학 치주과학교실

齒槽骨缺損時 利植材料로 사용한 數種의 bioceramic製劑가 治癒課程에 미칠 수 있는 영향을 규명하고자 顆粒型 β -Tricalcium Phosphate와 結晶型 Hydroxyapatite 및 海洋珊瑚의 熱水轉換한 Replamineform Hydroxyapatite를 이용하여 成대한 齒槽骨缺損部에 充填하여 이를 실험부로 하고 利植하지 않은 부위를 대조부로 하여 시술 1, 2, 4, 68週후 이들의 回復狀態를 관찰하여 다음과 같은 결론을 얻었다.

1. 모든 組織學的 소견에서 纖維芽細胞는 1週부터 增殖되어 4週에서는 치밀한 膠原性結締組織으로 成熟되었다.
2. Replamineform Hydroxyapatite인 경우 骨樣組織이 手術後 2週째부터 관찰되어 가장 빠른 新生

Such problems also can be encountered in other laboratories and unidentified bacteria were comes out from 5 to 10% on each report(Moore 1982, Ohta 1984).

In this study, *B. intermedius* and *B. gingivalis* were the major microflora and they comprised over 50% of total black-pigmented *Bacteroides* in R. P. P. patients. On the contrary, in healthy control, *B. melaninogenicus* and *B. loeschii* were the major part of microflora and it's comprise around 60% among total black-pigmented *Bacteroides*, these data suggested that *B. melaninogenicus* and *B. loeschii* were closely related with healthy gingival condition, but these result contrasted with those found by White(1981).

These results suggested that *B. gingivalis* and *B. intermedius* play a role in the etiology of rapidly progressive periodontitis.

Mean proportions of black-pigmented *Bacteroides* between moderate and severe inflammation group among 17 R. P. P. patients showed significantly higher distribution of *B. gingivalis* in severe group(46.43%) that that of moderate group(9.09%) and these results indicated that *B. gingivalis* is important in periodontal infections involving inflammation and bone loss.(Tanner 1979, White 1981, Ohat(1984).

Slote(1977), Tanner(1979), and White(1981) reported that *B. gingivalis* was absent in crevices defined as healthy(GI=0), but, in or study, 3 strains of *B. gingivalis* among total 51 colonies were isolated and identified from healthy control.

Further study should be needed for clarifying of absent or present of *B. gingivalis* in healthy site.

One particular results in our study revealed that *B. loeschii* were 8.05% from total identified black-pigmented *Bacteroides* and were isolated 7 colonies among 87 of identified total black-pigmented *Bacteroides*.

Despite the face that several studies have shown the importance of *B. gingivalis*, *B. intermedius* and *B. melaninogenicus*, there was no report on the prevalence and toxicity of *B. loeschii*. Further investigation would be recommened on the relation between disease activity and change of the proportion of black-pigmented *Bacteroides*.

The study of the effects of polymeric reinforced zinc-oxide eugenol on the healing of furcation

Choong Soo Kim

Department of Dental Science, Graduate School, Yonsei Unjiversity

The purpose of the present investigation was to study the sequential effect of Polymeric-Reinforced Zinc-Oxide-Eugenol on the experimentally induced lesion of furcation area in the dogs.

Six dogs, 1year over age and weighting 12-20Kg were used.

By the method of orthodontic elastic thread ligature, 12weeks after, through and through furcation involvemtn was presented.

Dogs were randomly distributed into group of 1, 2, 3, 4, 5, 6week.

Polymeric-Reinforced Zinc-Oxide Eugenol was inserted into the furcation of upper and lower right

P3 and P4 (experimental group 2), composite resin was into upper and lower left P3 and P4 (experimental group 1). Lower right and left P2 were not filled with any material (control group).

Biopsies were sampled as the time intervals of each group.

The results of this study were as followed;

1. Clinically normal healing features appeared in both control group, experimental group 1 and experimental group 2, but 2 weeks of experimental group 1 presented severe swelling and redness on the gingival, in contrast to spontaneous healing of control and experimental group 2, and after 1 week experiment, inflammatory cell infiltration was similar in both experimental group 1 and experimental group 2, but the extension of inflammatory cell infiltration was appeared in 2 weeks experimental group 1 and continuous to 6 weeks, in contrast to gradual decrease in experimental group 2.
2. During experiment, unkeratinized sulcular epithelium was observed in experimental group 2 and gradual decrease of collagen fiber volume was observed in experimental group 1, and in the 2 weeks experimental group 1, ulceration of sulcular epithelium and a part of connective tissue was appeared, and this findings were continued to 6 weeks experiment.
3. Attachment of epithelial cell to the surface of filling material and gradual maturing features were observed in experimental group 2 during this experiment, but that was not observed on the surface experimental group 1.
4. Only in the 2 weeks experimental group 2, fiber attachment to the surface of filling material was observed.
5. In both experimental group 1 and 2, tight junction between the filling material and root surface was failed to display.

An experimental study of bioceramics on the regeneration of alveolar bone defects in dogs

Joon Bong Park, Man Sup Lee

Department of Periodontology, Division of Dentistry

The author investigated with 3 type of bioceramics to the effect on the healing process of the alveolar bone defects as an alloplastic implants material.

As a biodegradable material, B-tricalcium phosphate, and as a nonbiodegradable ceramic, crystalline hydroxyapatite and replamineform hydroxyapatite ceramic were used.

5 mongel dogs were cerated artificially with surgical bur and other hand periodontal instruments on the buccal surface of mesial root of the third premolar in each dog's mouth under the general anesthesia with pentobarbital soudium salt.

After cerated artificial bone defects, root planing was performed with curette. And then 3 bony defects were filled with each bioceramic and other one site was used as control site without any implant materials.

Flap were sutured with 4-0 eyeless suture silk needle. For the avoidance of escaping the implant