

- 으며, 반면에 실험 II군과 대조군에서는 날짜에 따라 특기할 만한 변화를 관찰할 수 없었다.
4. 치근의 흡수는 실험 I, II군에서만 실험 3일째부터 관찰할 수 있었다.

● 정신박약아동에 대한 전기치솔 사용효과에 관한 연구

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서울市内 K學院에收容된 精神薄弱兒童中 전기치솔 使用群 22名을 實驗群으로, 일반치솔 13名을 對照群으로 하여 이들에 對한 齒苔形成, 齒石沈着 및 齒齦炎 變化를 比較 分析하여 다음과 같은 結論을 얻었다.

1. 전기치솔 使用群에서 일반치솔 使用群에 비해 齒苔, 齒石 및 齒齦指數가 共히 有意하게 낮았다.
2. 時間經過에 따른 齒苔 沈着度の 變化는 兩群 共히 齒面洗磨後 1週에 急速한 成長을 보였다.
3. 時間經過에 따른 齒石 沈着度の 變化는 兩群 共히 齒面洗磨後 1週부터 3週까지 서서히 增加되는 傾向을 보였다.
4. 齒齦炎의 進行은 전기치솔 使用群에서 減少되는 傾向을 보였다.
5. 齒苔 沈着度는 一般 精神薄弱兒童과 蒙古症 患者間의 有意한 차이가 없었다.
6. 齒苔 沈着度에 따른 男女間의 差異는 없었다.

● 외상성 교합력이 성견 치주인대내의 혈관조직에 미치는 영향에 대한 전자현미경적 연구

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저자는 외상성 교합력이 치주인대내의 혈관조직과 섬유아세포 교원섬유 등에 미치는 영향을 관찰하기 위하여 5마리의 성견을 실험동물로 1마리는 대조군으로 하고 나머지 4마리를 각 실험일수에 따라 3일군, 7일군, 15일군, 30일군으로 나누어 성견의 치아에 외상성교합력을 가했고 전자현미경을 이용관찰하여 다음과 같은 결론을 얻었다.

1. 외상성 교합력을 가한 3일군에서 혈관내피세포와 섬유아세포의 사립체가 파괴되었다.
2. 외상성 교합력을 가한 7일군에서 섬유아세포의 조면형질내세망의 확대된 양상을 볼 수 있었으며 혈관주위 기저판의 연속성 소실을 볼 수 있었다.
3. 15일군에서 혈관의 팽창과 적혈구의 파괴, 내피세포의 편평해진 모양을 관찰할 수 있었으며 기저판의 부분적 파괴를 보이며 적혈구가 혈관강 밖에서도 관찰되었다.
4. 30일군에서 혈관의 팽창이 지속되며 교원섬유와 섬유아세포는 대조군과 거의 비슷한 양상을 보인다.
5. 각 실험군에서 모두 교원섬유의 주기성은 유지되었고 외상성 교합력만에 의한 교원섬유의 변화는 볼 수 없었다.

3. The numbers of osteoclast were rapidly increased on 3rd day in experimental I group and decreased again on 5th as 1st day, but were not significantly changed in experimental II and control groups during experimental periods.
4. Root resorption of tooth were showed in both experimental groups from 3rd day.

Comparison between electric and manual toothbrush in oral hygiene of mentally retarded children

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The purpose of this study was to compare the effect of electric and manual toothbrush in mentally retarded children.

For this study, 35 mentally retarded children were divided into 2 group. 22 mentally retarded children used electric toothbrush while the other 13 children used manual toothbrush.

Each subject was examined for plaque formation, calculus deposition and progress of gingivitis once a week for duration of three weeks.

The results were as follows ;

1. Brushing with the electric toothbrush over a period of three weeks significantly reduce plaque, calculus and gingivitis index when compared with manual toothbrush.
2. Both group showed a rapid accumulation of dental plaque after the first week
3. The growth rate of dental calculus was increased within the given period on both group.
4. The degree of gingivitis was lower for subjects that utilized electric toothbrush.
5. No significant difference between mentally retarded children and mongoloid children in the degree of plaque deposit was shown.
6. No difference between male and female in the degree of plaque deposit was indicated.

An electron microscopic study on vascular changes of periodontal ligament incident to trauma from occlusion in dogs

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The purpose of this study was to investigate the electron microscopic vascular changes of dog molar periodontium incident to trauma from occlusion.

The experiments were performed in five dogs. One dog was used as control and the other four dogs were used as experimental groups.

In experimental groups, high Sun Platinum casting metal crowns with 2.0mm thickness were set

artificially onto the upper right third premolars to create the traumatic occlusion.

After 3, 7, 15, 30 experimental days, the specimens were stained with Hematoxylin Eosin and Trichrome, examined under light microscope. Also all specimens were observed under electron microscope.

The results of this study were as follows :

1. In 3day group, mitochondria of endothelial cell and fibroblast were broken.
2. In 7day group, dilatation of rough endoplasmic reticulum in fibroblast and looseness of basal lamina surrounding capillary were observed.
3. In 15day group, dilatation of blood vessel, severe destruction of RBC, flatening of endothelial cell were observed. In outside of lumen, RBC was also observed.
4. In 30day group, dilatation of blood vessel was remaining. But collagen fibers and fibroblasts were observed nearly similar to control group. Remnants of broken RBC were observed.
5. In all experimental groups, the band of collagen fiber was remaining and changes of collagen fibers was not observed.

The effect of metronidazole local delivery on the subgingival plaque bacterial morphotypes and clinical parameters in periodontal abscess

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The present investigation was performed to assess the effect of metronidazole, locally administered via acrylic resin strips, on microflora of periodontal pockets in humans and on various clinical parameters describing periodontitis and gingival inflammation. Eighteen periodontally abscessed patients, of whom 11 were diagnosed periodontally as adult periodontitis, 4 as rapidly progressive periodontitis, 3 as local juvenile periodontitis, were used in the study. The 7day in vitro release kinetics of metronidazole from acrylic resin was analysed by using the UV/Visible light spectrophotometer at 350nm. The clinical parameters and subgingival bacterial morphotypes were examined before and after 1 week of local metronidazole administration. The bacteria were examined in a dark-field microscope and categorized into the following groups : spirochetes, motile microorganisms, nonmotile microorganisms. The percentage distribution of the various forms was calculated. The pus discharge index was specifically defined to class the periodontal abscesses according to the pus discharge amount and size. The discomfort and side effects of metronidazole after insertion of acrylic resin strips into periodontal pockets were also examined.

The experiments showed that :

1. The in vitro release of metronidazole into distilled water was sustained for 7 experimental days.
2. The toxic and side effects of metronidazole were nearly observed when locally administering.
3. Such acute symptoms as pain and pus discharge were markedly diminished, and the clinical indexes describing periodontal disease severity were markedly improved after 1 week of local administration of metronidazole.