

● 치근활택술시 치근표면의 조도 및 주사전자현미경적 연구

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深한 齒周疾患으로 因하여 拔去된 80個의 人間齒牙를 選別하여 齒根滑澤術에 使用되는 手用큐－렛 및 超音波齒石除去器의 器具形態, 器具의 銳利度 및 滑澤回數와 作動時間에 따라서 齒根面을 處置하여 表面粗度を 測定하고 齒面을 走査電子顯微鏡으로 觀察하여 研究한 結果 다음과 같은 結論을 얻었다.

1. 齒周器具 使用後의 齒根面粗度は 10秋間의 超音波齒石除去機 使用群에서 $19.36 \pm 2.87 \mu$ inch로 가장 높았으며 10회의 垂直 및 水平으로 施術한 銳利한 手用큐－렛 群에서는 $5.98 \pm 1.58 \mu$ inch로 가장 낮았다.
2. 走査電子顯微鏡의 所見에서 무딘 手用큐－렛 使用群은 齒根面에 약간의 殘存物이 存在하였고 不規則한 깊은 홈을 나타내었으나 銳利한 手用큐－렛群은 齒根面에 殘存物이나 龜裂像을 보이지 않았으며 比較的 얕고 微細한 홈을 나타내었다.
3. 手用器具에서 切削線의 銳利性에 따라 齒根面에 形成된 滑澤性은 현저히 높았다.
4. 同一한 큐－렛을 使用한 境遇 施術回數의 增加가 齒根面의 平滑程度를 더 確實하게 할 수 있으며 超音波齒石除去器 單獨의 使用으로는 齒根面의 滑澤은 얻을 수 없었다.
5. 器具의 形態, 銳利性 및 施術回數에 따라서 齒根滑澤術後 齒根面의 滑澤程度는 다르나 完全한 滑澤面은 얻을 수 없었다.

● 치주질환으로 인한 치아발거 경향 및 치은연하 치석의 형태에 관한 연구

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1982年 3月부터 1984年 2月까지의 2年間 慶熙大學校 齒科大學 附屬病院 齒周科에 來院한 患者中 重病齒周疾患으로 因해 拔去된 495個의 永久齒를 對象으로 하여 이들을 年齡別, 性別 齒牙別로 集計 分析하였으며, 또한 拔去齒牙의 齒根面에 附着된 齒齦緣下 齒石의 形態를 7가지로 分類하여 그 分布狀況을 觀察한 바 다음과 같은 結論을 얻었다.

1. 拔去齒牙의 年齡別 分布는 男女 共히 50~50歲群에서 가장 많았다.
2. 拔去齒牙의 性別分布는 男子가 女子보다 많았다.
3. 拔去齒牙의 齒牙別 分布狀況은 上顎第二大臼齒가 가장 높았으며 다음이 上顎第一大臼齒, 下顎第二大臼齒, 下顎中切齒, 上顎中切齒의 順이었으며 犬齒가 가장 낮았다.
4. 上下顎別 分布는 上顎이 下顎보다 많았다.
5. 齒周疾患으로 因한 拔去率은 40歲 以後에서 85.7%를 차지 하였다.
6. 齒周疾患으로 因해 拔去된 모든 齒牙의 齒根面에서 齒齦緣下齒石이 觀察되었다.
7. 齒齦緣下齒石의 形態는 crusty, spiny or nodular deposits가 42.2%로 가장 높은 比率을 차지 하였다.

immunodiffusion and immunofluorescence procedures. For the ultrastructural study of the *Actinobacillus actinomycetemcomitans* SNUDC 1, 3, 4, 5, 9-2 and 10-1, transmission and scanning electron microscopies were performed through routine procedures.

The results obtained were summarized as the following :

1. From the preliminary study on the specificity of anti-sera purified by immunoadsorption procedure, it was revealed that three types of anti-sera did not show non-specific cross reactions with each sonicate antigen except anti-Aa Y4 serum which had a partial identify with Aa 75 antigen. The specificity of antisera were good enough to apply for identifying the serotypes of bacilli with appropriate dilution in the immunofluorescence procedure.
2. Among the twelve selected strains of *Actinobacillus actinomycetemcomitans* in Koreans, nine strains were identified to be of serotype c, and the others did not show any identity to three types of antisera applied.
3. In the scanning electron microscopic study, morphology of three types of *Actinobacillus actinomycetemcomitans* strains were revealed to be either rod cocci or mixed types, and they possessed round or oval amorphous materials on their surfaces. Some cells were observed to be connected by surface fibrils emerging from one cell.
4. Three definite structure of the cell surface consisted of outer membrane, peptidoglycan layer and cytoplasmic membrane were confirmed by transmission electron microscopy. Some fibrillar structures, forming clusters, were observed on the surface of bacteria or in the space between them, vesicular structures were not observed frequently.

Scanning electron microscopic and profilometric study of diseased root surface after root planning

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Root planning instrumentation was accomplished on eighty periodontally involved human teeth using the hand curette and the Cavitron Ultrasonic.

The surface roughness and photomicrographs after instrumentation were evaluated by profilometer and scanning electron microscope.

The results were as follows :

1. The highest surface roughness value was 19.36 ± 2.87 (μ inch) when ultrasonic instrument applied for 10 seconds and the lowest surface roughness value was 5.98 ± 1.58 when using sharp hand curette for 10 times.
2. In the scanning electron microscope, the dull hand currettes produced a little remnants on the tooth surface, and irregular deep groove, while the sharp hand curette produced the surface with the lowest, minute groove.
3. In the case of hand currettes, excellent root surface smoothness was obtained by sharp cutting edges of hand currettes only.

4. Root surface roughness was performed by repeated curettage and was not obtained by ultrasonic scaler alone.
5. The instrument type, sharpness and the number of stroke applied made different root surface patterns each other, but there was no considerable changes in tooth substances among them.

The study on a statistical investigation of the extracted teeth due to periodontal disease and on the morphology of subgingival calculus

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The purpose of present study was to analyse statistically the extracted teeth due to periodontal disease and to observe the pattern of subgingival calculus morphologically.

The materials were selected 495 permanent teeth extracted by periodontal disease of the out patients who visited department of periodontology, Kyung Hee Medical Center, from Mar. 1982 to Feb. 1984.

The results were obtained as follows :

1. The group of patients aged 50-59 had the most number of extracted teeth among other age groups.
2. In the sex distribution of the extracted teeth, men's was more than woman's in number of extracted teeth.
3. In the incidence of extraction, maxillary second molars were the highest and mandibular canines were the lowest.
4. In the comparison of maxilla and mandible, the number of extracted teeth of maxilla were more than those of mandible.
5. The rate of extraction by periodontal disease was 85.7% over the age of 40.
6. The morphology of subgingival calculus was divided into seven types, and the crusty, spiny or nodular deposits were the highest rate(42.2%).

Serum immunoglobulins and complement in gingivitis patients

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The purpose of this study was to determine if any alteration were detectable in a particular component of serum IgG, IgA, IgM, C₃ and C₄ in gingivitis patients.

Twenty gingivitis patients and twenty control subjects with normal peridontal tissue were participated in this study.

Blood samples were collected 5 ml from median cubital vein in forearm of each person. The samples