

세 치근 각각의 치근면적보다 넓었다.

5. 전체 치근길이의 치관쪽 1/2에서 전체 치근면적의 약 60%를 차지하였다.

● 치주질환시 병소부위와 상대적 건강부위의 치은연하 치태세균의 분포에 관한 연구 - 성인형치주염과 급속진행형치주염의 비교 -

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경희대학교 치과대학 부속병원 치주과에 내원한 환자중 30명의 성인형치주염 환자와 30명의 급속진행형치주염 환자를 대상으로 위상차현미경을 이용, 병소부위와 상대적 건강부위의 치은연하 치태세균의 형태학적 분포 및 임상지수와 세균분포의 상관관계를 관찰하여 다음과 같은 결론을 얻었다.

1. 성인형치주염 환자군의 병소부위에서는 구균이 20.79%, 운동성 간균이 15.76%, 총나선균이 29.41%였으나 상대적 건강부위에서는 각각 55.46%, 2.42%, 4.96%로 이들 세균분포에 유의성있는 차이가 있었다($p < 0.005$).
2. 급속진행형치주염 환자군도 병소부위에서는 구균이 18.77%, 운동성 간균이 14.22%, 총나선균이 34.52%였으나 상대적 건강부위에서는 각각 48.43%, 3.65%, 3.66%로 유의성있는 차이를 보였다($p < 0.005$).
3. 운동성 세균이 두 질환군 공히 병소부위에서 유의하게 증가되었다($p < 0.05$).
4. 두 질환군간에 임상지수 및 세균의 형태학적 분포에 현저한 차이는 없었으나 급속진행형치주염 환자군에서 치은열구 출혈지수와 대나선균이 더 높게 나타났다($p < 0.05$).
5. 치태지수, 치은염지수, 치은열구 출혈지수 및 치주낭 깊이에 대해 구균은 반비례하는 경향을, 나선균과 총운동성 세균은 비례하는 경향을 보였다.

● Chlorhexidine을 이용한 치주낭 세척이 치주염에 이환된 치근내 침투세균에 미치는 영향

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치주염에 이환된 치아 21개를 대상으로 chlorhexidine 치주낭세척이 치주염에 이환된 치근의 백악질 및 상아세관내에 침투한 세균을 제거 혹은 감소시키는 지를 관찰하였다. 1군의 9개 치아는 치근활택술만을, 2군의 12개 치아는 치근활택술시 1회의 chlorhexidine 치주낭세척을 각각 시행하고, 두 군의 치아를 1주 후에 발치하여 Brown과 Brenn의 염색법으로 염색한 후 광학현미경으로 관찰하였다.

위의 실험으로 다음과 같은 결과를 얻었다 :

1. 21개 치아중 12개 치아에서 치근표면에 세균성치태가 부착한 것으로 관찰되었으며, 이중 1군의

and the length of roots were calculated separately.

The results were as follows :

1. The mean length of the roots were 11.52mm for the palatal root, 11.28mm for the mesiobuccal root, and 10.68mm for the disobuccal root. The distobuccal root was shortest among the three roots.
2. The mean distance from the Cementoenamel junction to the point at which the roots separate from the root trunk was 4.58mm for the mesiobuccal root and 4.66mm for the distobuccal root. The mesiobuccal root separation was more coronal than the distobuccal root separation but the differences were not significant.
3. The mean root surface area was 88.44mm² for the mesiobuccal root. 80.14mm² for the palatal root, and 58.87mm² for the distobuccal root. The mean mesiobuccal root surface area was wider than the mean palatal root surface area($p < 0.05$).
4. The mean surface area of the root trunk was 155.67mm² and averaged 40.63% of the total root surface area. It was wider than the mean surface area of each roots.
5. The coronal one-half of the root length accounted for approximately 60% of the total root surface area.

A study of the morphologic distributions of subgingival plaque bacteria in diseased sites and relatively healthy sites of adult periodontitis and rapidly progressive periodontitis

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The purposes of this study were to determine the morphologic distributions of subgingival plaque bacteria and correlations between clinical parameters and bacterial distributions in diseased and relatively healthy sites of adult periodontitis and rapidly progressive periodontitis.

Thirty adult periodontitis patients (17 males, 13 females ; 36yrs. to 59yrs.) and thirty rapidly progressive periodontitis patients (22 males, 8 females ; 19yrs. to 35yrs.) were selected for this study. Plaque index, gingival index, sulcular bleeding index, and pocket depth were measured on all tooth surfaces and full mouth standard films were taken. According to degree of clinical parameters and bone destruction, diseased sites and relatively healthy sites were selected. In diseased site, pocket depth more than 6mm, severe gingival inflammation, and bone destruction more than half of root length were present. In relatively healthy site, pocket depth less than 3mm, clinical indices less than 1.0, and no remarkable bone destruction were present. Microbial samples were collected from selected tooth surfaces and examined with phase-contrast microscope to classify into 9 morphotypes ; cocci, straight rods, curved rods, motile rods, filaments, fusiforms, small-, medium-, and large-sized spirochetes. For statistical analysis, Student's t-test was used for comparison of mean measurements and Pearson correlation coefficient was utilized in order to determine association between the clinical parameters and microbial data.

The results were as follows :

1. In adult periodontitis patients, cocci of 20.79% , 55.46% , motile of 15.76% , 2.42% , and total spirochetes of 29.41% , 4.96% were separately in diseased sites and relatively healthy sites and significant difference were present ($p < 0.005$).
2. In rapidly progressive periodontitis patients, cocci of 18.77% , 48.43% , motile rods of 14.22% , 3.65% , and total spirochetes of 34.52% , 8.66% were separately in diseased sites and relatively healthy sites and significant differences were present too ($p < 0.005$).

Effect of subgingival chlorhexidine irrigation on bacteria invaded the periodontitis-affected roots

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Previous studies have shown the presence of invading bacteria in the radicular hard tissues of periodontitis-affected teeth. This study was performed to examine the effect of single episode of subgingival chlorhexidine irrigation on periodontal attachment loss in nine patients were randomly divided into two experimental groups :

Group I nine teeth received root planing only : and Group II, twelve teeth received root planing and single irrigation with 0.2% chlorhexidine. One week after treatment the teeth were extracted, stained by Brown and Brenn method, and observed with light microscopy. The surface bacterial deposit of group I was considerably thicker and denser than that of group II. In 3 teeth bacterial invasion was found in cementum (group I : 2 teeth, group II : one tooth). In 7 teeth bacteria had invaded the dentinal tubules (group I : 3 teeth, group II : 4 teeth). In 6 teeth bacteria were detected in outer 1/3 and middle 1/3 portion of radicular dentin, and in one tooth (group II) the bacteria had invaded into pulpal 1/3 portion of radicular dentin. No bacteria were found in the portion to the root located apically to the epithelial attachment. These data suggested that single episode of subgingival chlorhexidine irrigation could reduce the surface bacterial deposit to some extent, but could not eliminate the bacteria invaded the dentinal tubules.

Antigenic characterization and virulence of *Bacteroides forsythus*

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Recently, a distinct species, *B. forsythus* in genus *Bacteroides* has been identified and characterized. They have a unique cell wall ultrastructure and yield inconsistent and usually negative results upon biochemical tests. However, their pathogenic potentials were not studied in detail. This study was