전악으로부터 plaque를 채취하였으며 그의 탄수화물, 단백질, 질소, 칼슘, 마그네슘, 포타시움 및 무기인 함량을 분석하였다.

1. 有機物인 total carbohydrate contents는 11.0mg/110mg of dried weight, protein은 5.45mg/110mg of dried weight, nitrogen은 5.90mg/110mg of dreid weight를 얻었다.
2. 無機物인 Ca, Mg, K의 Contents는 flame photometer를 사용해서 Ca은 0.8mg, Mg 1.88mg, K 1.33mg/110mg of dried weight를 얻었고 inorganic phosphate는 1.45mg/110mg of dried weight를 얻었다.

● 초음파 기계와 수용기계 사용후의 치근면 조도의 비교

윤 명 국
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數種의 齒周機械를 使用하여 root planing한 後의 齒根面 粗度를 拔去齒 100個를 對象으로 Surfindicator로 測定한 結果 다음과 같은 結論을 얻었다.

1. Curettes單獨으로 root planing한 것이 Cavitron이나 Files單獨 使用한 것보다 顯著하게 優秀하였다.
2. Curettes과 Cavitron+Curettes 또 Files+Curettes 使用함은 거의 같은 粗度를 나타냈다.
3. 超音波 機械와 Files는 매우 粗粗한 齒根面을 形成하였고 거의 같은 粗度의 齒根面을 形成하였다.

● 백서의 악하선에서 인슐린결핍이 리보뉴클레아제 활성에 미치는 영향

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Alloxan-Diabetic Rat의 악하선의 Ribonuclease Amylase, Acid Phosphatase 및 Alkaline Phosphatase의 효소활성변동을 관찰하기 위하여 대조군, Alloxan군과 Alloxan+Formalin군으로 나누어 실험한 바 다음과 같은 결론을 얻었다.

1. 백선의 악하선 내의 RNase의 존재를 확인하였다.
2. 악하선 내의 Acid RNase와 Alkaline RNase가 모두 존재하며 최적 pH는 5.2와 8.0이다.
3. 악하선 내에 RNase Inhibitor가 존재한다.
4. Insulin 부족시에 타액선의 RNase, Amylase, Acid 및 Alkaline Phosphatase의 활성의 변동은 심하지 않았다.

3. A marked increase of osteoclastic activity was observed in the adrenalectomized and cortisone injected group, while the adrenalectomized plus cortisone injected group showed only ceased osteoblastic activity.
4. The adrenalectomized plus cortisone injected group and cortisone group showed an increased cellular elements of periodontal ligament.

The study on the chemical compositions of human dental plaque

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The author has analyzed on the organic and inorganic contents of human plaque which was collected from six adult persons with the following results.

1. In organic contents, 11.0mg of carbohydrate, 5.45mg of protein and 5.90mg of nitrogen were shown from a total dried weight of 110mg plaque.
2. In inorganic contents, 0.82mg of Ca, 1.88mg of K and 1.45mg of inorganic phosphate 20mg are obtained from total dried weight of 110mg plaque. the Ca/P weight ratio which shows 0.3 was markedly low comparing other report.

Comparison of root surface roughness after use of ultrasonic istruments

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Since ultrasonic instrument applicated to clinical periodontics, there have been a number of clinical reports on the effectiveness of Ultrasonics.

The purpose of this study was to compare the roughness of root surfaces following subgingival root planing with various instruments.

One hundred extracted human teeth were used in this study, and divided into five groups, and instrumented as follows.

Group I : Use of cavitron only
Group II : Use of files only
Group III : Use of curettes only
Group IV : Use of cavitron and curettes(cavitron followed by curettes)
Group V : use of files and curettes(files followed by curettes)

The following results were obtained.

1. Subgingival root planing with curettes only resulted in significantly smoother root surfaces than root planing with cavitron or files only.

2. Curettes, cavitron followed by curettes, and files followed by curettes were produced root surface of near equal roughness.
3. Cavitron and files were produced very rough root surfaces and both instruments produced root surfaces of near equal roughness.

Effect of insulin deficiency on the ribonuclease activity of submaxillary gland in the rat

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This experimental study was undertaken to observe the ribonuclease and its inhibitor of submaxillary gland in rat and in attempt to observe the change in level of ribonuclease, both free and latent, amylase, acid and alkaline phosphatase of submaxillary gland in insulin deficiency, the alloxan-induced diabetic rat were subjected to investigate it.

1. Ribonuclease activity is shown in rat submaxillary gland.
2. The shape of the curve ribonuclease activity plotted against pH in the submaxillary gland show peak activity at pH 5.2 and 8.0.
3. An inhibitor of ribonuclease exist in submaxillary gland of rat.
4. In the alloxan-induced diabetic rat, there is no change of levels of RNase, amylase, acid and alkaline phosphatase in submaxillary gland.