

https://dspace.org/

Some extrinsic factors in the aetiology of periodontal disease I

Volchansky, A.; Viera, E.

1983

http://hdl.handle.net/10539/19544

Volchansky, A., Viera, E. 1983. Some extrinsic factors in the aetiology of periodontal disease I. Journal of the dental association of South Africa; 38(3):192-5

Downloaded from a DSpace repository. https://dspace.org/

Practitioners' Corner

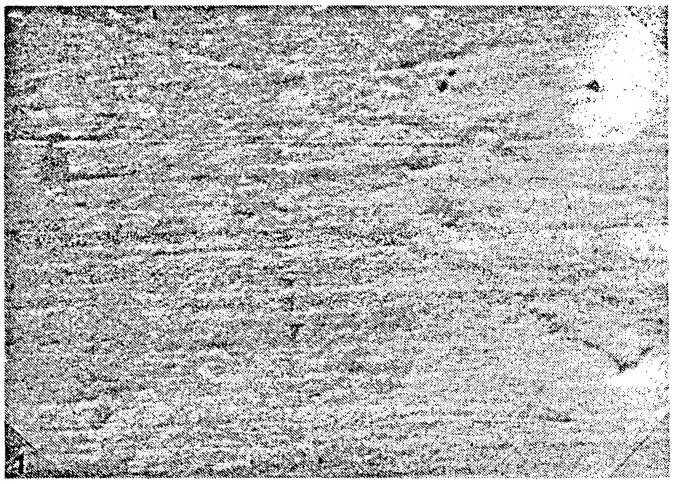
Some extrinsic factors in the aetiology of periodontal disease I

* A. Volchansky and *E. Viera

The purpose of this presentation is to illustrate some local aetiological factors in periodontal disease; and to show some of the anatomical factors that may predispose to the disease.

"Of all the suggested methods of preventing dental disease, plague control, preferably by avoiding its formation, would seem to be the most logical." *G.N. JENKINS, 1979*

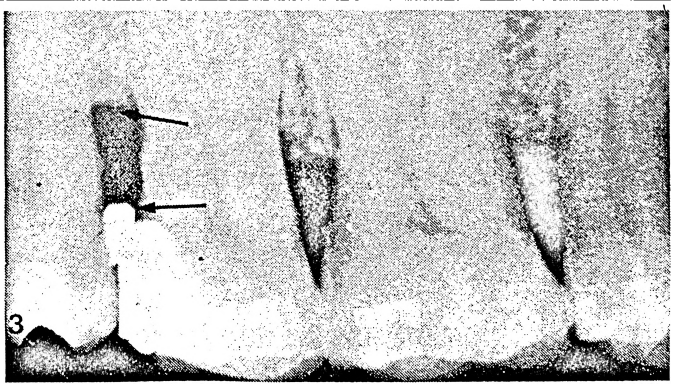
The adjacent photograph is of a normal healthy enamel surface (x 1000). This scanning electron micrograph shows a smooth surface, and it is logical to expect that plaque adherance would be minimal.



In contrast to the above photograph, the adjacent picture is of an amalgam restoration (a) that was in the mouth for many years (x 2300). This demonstrates the roughness which may occur at the gingival margin on even sub gingivally.

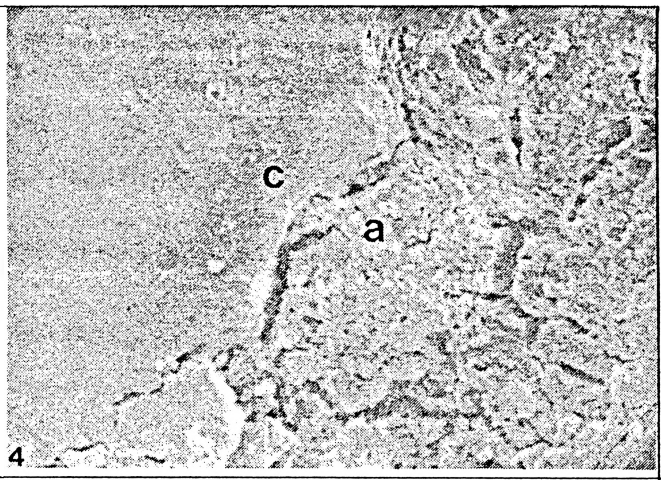


A large overhanging edge of an amalgam restoration (arrowed) can be seen in the x-ray photograph. It may not be a mechanical irritant, or the direct cause of the periodontal lesion, but consider the roughness of the amalgam, its location and the quantity of plaque that could collect on this surface.

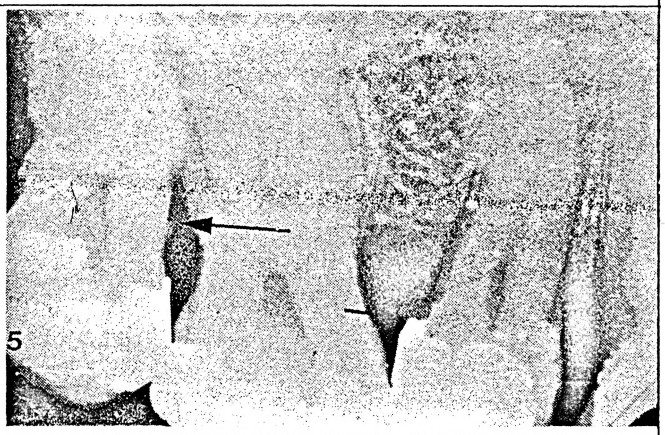


MRC/University of the Witwatersrand
Dental Research Institute
Johannesburg

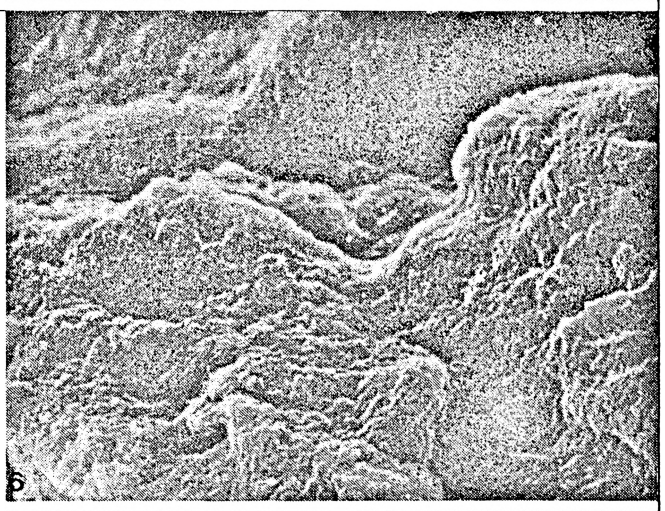
A further contrast in roughness between an amalgam restoration (a) and cementum (c) may be seen in this photograph. The magnification is x 1000.



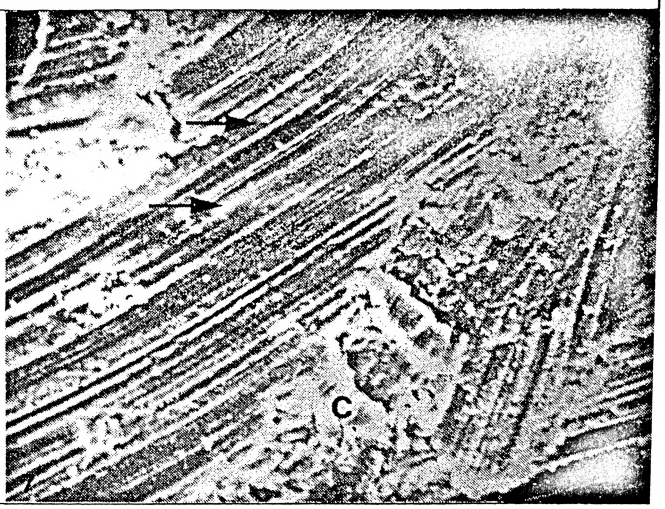
Both an amalgam overhanging ridge and sub-gingival calculus (arrowed) are seen on this intra-oral radiograph. The larger arrow points to the calculus approximating the alveolar bone. While it may be argued that the calculus itself is an irritant, its rough surface would allow for a greater accumulation of plaque.



Calculus shown in a scanning electron micrograph (x 2000) reveals extreme roughness and a surface suitable for plaque accumulation.



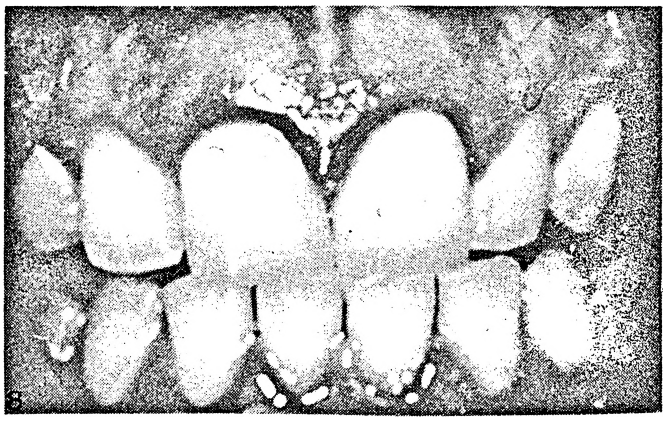
On an extracted tooth that had just been scaled, a scanning electron micrograph (x 2000) shows inadequate scaling and root planning with resultant residual calculus (C) and tracks produced by its scaler (arrowed). These rough surfaces with an increase in surface area could also allow for the accumulation of sub-gingival plaque.



These photographs have been used to illustrate surface roughness and to demonstrate that their presence could be conducive to the bacteria that produces dental disease.

The over-extension of a restoration sub-gingivally with resultant plaque accumulation may also produce a periodontal lesion. The cause is a combined mechanical irritation and bacteriological-chemical action on the periodontium. The following photographs have been chosen to illustrate this phenomenon.

The crown margins of the crowns on the central incisors may have been placed at or just below the gingival margin. Consideration should however be given to the relationship of the cemento-enamel-junction, the gingival margin and the alveolar margin, as the anatomical crown may approximate the alveolar margin.



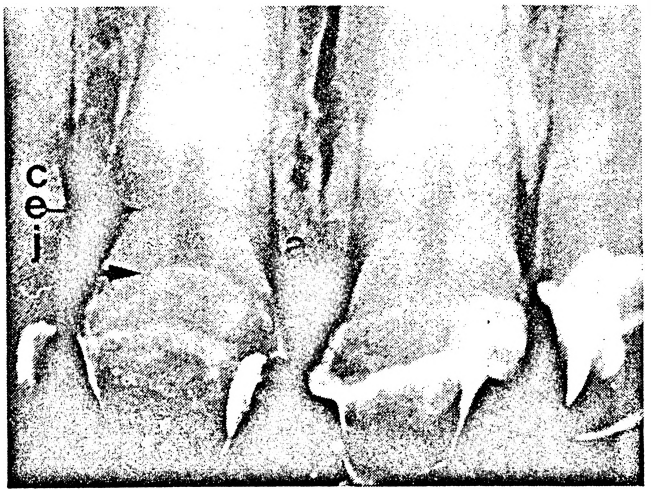
The adjacent intra-oral radiograph of the above patient shows the clinical crowns to be coronal to the cemento-enamel-junction (arrowed) and close to the alveolar margin. It could therefore be suggested that the tooth has not fully erupted or that altered passive eruption is present.



The observation made above is further highlighted in this clinical photograph. A short clinical crown is seen with rolled gingival margins, and an indication of where the anatomical crown (the cement-enamel-junction) may be found; arrowed.



The intra-oral radiograph of the above patient shows that the clinical crown is approximately two thirds the size of the anatomical crown. The cemento-enamel-junction (arrowed) of the tooth is either at or below the alveolar margin (A). Care should therefore be taken in the placement of synthetic crowns on short clinical crowns, particularly in young individuals when the teeth may not be fully erupted.



OHSAVMSA

Rubriek vir die praktisyn

Redakteur: Helmut Heydt

Wat gebeur as die mondhigiënis ongemagtigde prosedures uitvoer?

Die Suid-Afrikaanse Vereniging vir Mondhigiëniste

The Oral Hygienists' Association of South Africa

INLEIDING

Tydens die opleiding van mondhigiëniste by al die universiteite in ons land, word die studente by wyse van praktiese sowel as teoretiese onderrig baie sterk onder die besef gebring van wat hulle nie mag nie en wel mag doen in die privaatpraktyk. Wanpraktyke deur mondhigiëniste, met die volle toestemming van die tandarts, is egter 'n daaglikse verskynsel en 'n voldonge feit! Maar wat sê die Wet?

Funksies van 'n mondhigiënis

In die jaar 1982 is die omvang van die beroep mondhigiëne, soos voorgestel in 'n dokument vanaf die Opvoedkundige Komitee van die TVSA, deur die Beroepsraad vir Mondhigiëne, na geringe veranderinge aanvaar, en het die Beroepsraad dit aan die SAGTR voorgelê, waar dit onveranderd aanvaar en bekragtig is. Dit lui soos volg:

"The following acts are hereby specified as acts which shall for the purpose of the Act be deemed to be acts pertaining to the profession of oral hygiene:

WITH THE EXCEPTION OF POINTS 1 AND 2, BE ABLE TO CARRY OUT THE FOLLOWING PROCEDURES ONLY ON THE INSTRUCTION AND UNDER THE RESPONSIBILITY OF A DENTIST AND PROVIDED THAT THE DENTIST CONCERNED OR HIS NOMINATED DEPUTY IS PHYSICALLY REASONABLY AVAILABLE:

1. ORAL HEALTH INSTRUCTION ON AN INDIVIDUAL AND GROUP BASIS
2. SELECTION OR EXAMINATION OF GROUPS OF PERSONS (SUCH AS SCHOOL CHILDREN, FACTORY WORKERS) IN ORDER TO REFER THEM TO DENTISTS FOR DIAGNOSIS AND TREATMENT
3. PROVISIONAL EXAMINATION AND CHARTING OF THE CONDITION OF THE MOUTH WITH PARTICULAR REFERENCE TO THE TEETH AND PERIODONTIUM
4. COMPLETE SCALING, ROOT PLANING AND POLISHING OF THE TEETH, INCLUDING TRIMMING AND POLISHING OF RESTORATIONS
5. DENTAL RADIOGRAPHY
6. TOPICAL APPLICATION OF AGENTS APPROPRIATE TO THE SCOPE OF PRACTICE OF THE ORAL HYGIENIST, INCLUDING CARIES-PREVENTIVE AGENTS, TOOTH DESENSITIZING AGENTS, TOPICAL ANAESTHETICS, PLAQUE CONTROLLING AGENTS, ETC
7. REMOVAL OF SUTURES, PERIODONTAL PACKS AND ORTHODONTIC APPLIANCES, THE APPLICATION OF PERIODONTAL PACKS AND OTHER DRESSINGS, THE CARE OF WOUNDS AND THE PLACING OF PRE-ACTIVATED ORTHODONTIC APPLIANCES
8. THE PERFORMANCE OF INTRA-ORAL