

this is accentuated in the bruxer and clencher, and where the teeth are already periodontally involved.

Saddle areas should be of metal, unpolished on the tissue side to permit maximum adaptation and stability. Tissue-contacting surfaces of partial dentures which will have been brought to a high polish with a rubber wheel lose some adaptation, making the denture more tooth borne, especially if it has occlusal rests. The rigid precision partial denture is often in this category. Full crowns, if for teeth to be clasped, are made cylindrical in shape with the clasp providing the gingiva-protecting bulge. While the tissue bearing dentures described may press upon the mucous membrane under the severe stresses that we are concerned with here, there is far less harm done to the abutment teeth. Persistent and severe pressures exerted over long periods may cause some settling of the dentures. Relief of saddle areas in such instances should be avoided if possible so as to permit the soreness to act as a proprioceptive deterrent to the muscle habit. Depression of the saddles into the ridges should be watched for, and if it occurs the patient should be reminded of what he is doing. If such settling occurs to the extent that thin cellophane is easily pulled through between the upper and lower jaws when tightly closed, simulated cusps of amalgam or gold are added to acrylic posteriors, or the teeth are replaced with longer ones.

#### COMPLETE DENTURES :

The breakage of porcelain teeth due to bruxing and clenching may be eliminated by the use of porcelain uppers and acrylic lower teeth. Denture breakage may be prevented by the use of metal bases. Ridge soreness, a frequent complaint in these patients, may be lessened by not wearing the denture at night. Cuspal confinement in the form of the locked bite is avoided in these patients.

From the above review, it appears that a relationship exists between periodontal disease and psychic factors. Epidemiologic and experimental research is lacking in this area, making it a fertile field for further investigation. Future research and new developments will undoubtedly modify present knowledge in this field.

#### JANKELSON CONCEPT VERSUS THE B.U.L.L. THEORY<sup>(1)</sup>

Jankelson has presented a concept of equilibration which differs sharply from the one followed frequently i.e. B.U.L.L. theory. With the use of a semi-transparent wax to register those areas which are producing wedging, he reshapes the lingual incline of the lingual cusp of the upper and the buccal incline of the buccal cusp of the lower. Although this method may work in those in which the teeth are firm and the functional movements have a limited range, the procedure is questionable in those cases in which the teeth have varying degrees of mobility and where habit neurosis has exaggerated the range of lateral tooth to tooth grinding. Teeth which are mobile, particularly those which can be

depressed, will not register as sharply on the wax and there is general danger of reducing firm teeth and increasing the degree of premature contact on the loose ones. Patient with habit neurosis will find prematurities far beyond the normal function range and will continue to traumatize these teeth with their gnashing and doodling. By following the B.U.L.L. formula the trauma can be eliminated even if the habit persists.

The advisability of using an abrasive for milling in the final adjustments is also a questionable procedure. Even though this is done in centric with vertical strokes, the teeth which are firmly supported will wear at a faster rate than those which exhibit some degree of mobility. The different materials used to restore teeth, the enamel and exposed dentin may all wear at different rates.

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#### INTERRELATIONSHIP BETWEEN BRUXISM AND THE PERIODONTIUM.<sup>(22)</sup>

There are many reflex connections between periodontal and gingival, receptors and the masticatory system, and most of these are negative in nature. A simplified explanation of negative feedback associated with the periodontium is that when the teeth come into contact, sensory impulses from the periodontal structures inhibit the jaw-closing muscles.

The existence of a positive feedback mechanism from the periodontium has been recently reported by Lund. In his first study, he used recorded neuronal activity from the lower precentral cortex and superior temporal gyrus in monkeys. In another study by Lund with humans, periodontal input was removed by local anesthesia. The subjects were then unable to exert their previously determined maximal biting force.

Goldberg reported of an excitatory reflex response of jaw-closing muscles after stimulation of the gingival receptors. He described a periodontal-masseteric reflex which was only demonstrable with the subjects biting. With either a tapping of a tooth or electrical stimulation of facial attached gingiva, an excitatory response was noted in the masseter muscles which had previously been unreported. Administration of local anesthesia markedly reduced the excitatory reflex of the tooth taps and completely blocked the reflex from the electrical stimulation of the gingiva.

These data show that with periodontal or gingival stimulation the jaw-closing muscles may be excited as well as inhibited, and this may play a role in the interaction of

bruxism and periodontal disease. In the presence of inflammatory periodontal disease, the normal role and influence of the periodontal and gingival receptors on jaw-closing muscles is no doubt altered.

Indeed, when one considers the possible increased incidence of bruxism in periodontal patients, it may be that these factors are related.

Eschler in an electromyographic study of bruxism noted, with inflammation, the normal relationship of periodontal receptors to masticatory muscles was altered. He stated that this increase in resting potential of the masticatory, musculature is caused by a lower response threshold in the muscle secondary to the periodontal inflammation.

Controversy still exists concerning the role of trauma from occlusion in the loss of epithelial attachment. The existence of conflicting theories and disagreements is evidence of the many voids in our knowledge of occlusion and the physiology of the stomatognathic system. Although future study and research may clarify some of these problems, our present day knowledge is sufficient to require every dentist to become a student of occlusion.

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## Abstract

### Pseudotumor Cerebri, a rare adverse reaction to tetracycline therapy. A Case Report

WITH THE FREQUENT USE of antibiotics as adjuncts to periodontal therapy today, it is imperative that dental clinicians be aware of adverse reactions to these drugs, regardless of their reported incidence. It is the purpose of this case report to present and describe a rare adverse reaction to tetracycline hydrochloride called pseudotumor cerebri of benign intracranial hypertension. It is manifested by an abnormal increase in intracranial pressure and papilledema in a patient with an otherwise normal neuroradiologic condition. Although severe headache appears to be the most bothersome acute symptom, the more important long - term side effect is visual caused by the papilledema.

Treatment should be directed towards discontinuation of the drug therapy, and immediate referral to a physician for a neuro-ophthalmic evaluation.

Minutello-JS; Dimayuga-RG; Carter-J J. Periodontol. 1988 Dec; 59 : 848-51

### An Appreciation

Messers, Colgate Palmolive (India) Ltd., is contributing lot towards the betterment of the Dental Profession by Sponsoring various conferences. Their School Dental Health Education programme is worth mentioning. They have extended their support in the publication of this Bulletin. We do appreciate their contribution and thank them.

### PERIO - SCAN AT SURAT

The Surat IDA branch had extended invitation to Department of Periodontia, G.D.C. & H.A'bad to conduct a scientific programme on periodontics. A team consisting of Dr. B. S. JATHAL, Prof. & Head of the Department, Dr. MIHIR N. SHAH, Tutor, Dr. V. PATEL, Tutor, Dr. C. SHAH & DR. S. GUPTA, Part-II Post graduate Students, Dept. of Periodontia, G.D.C. & H. A'bad visited Surat on 21<sup>st</sup> July.

Our scientific session consisted of :

- A paper on guided tissue regeneration.
- A slide show presenting various surgical procedures done in our department.
- Discussion of current research projects undergoing in the department.
- Question - Answer session.

It was a very successful programme and very well appreciated by around 70-80 leading dental practitioners of Surat IDA branch, who attended the programme.