

ABSTRACTS

Ridge preservation: what is it and when should it be considered?

Darby, I., Chen, S., De Poi, R.

The resorption of bone following extraction may present a significant problem in implant and restorative dentistry. Ridge preservation is a technique whereby the amount of bone loss is limited. This paper discusses the scientific literature examining the healing post extraction and ridge-preserving techniques, primarily from the perspective of implant dentistry. Some indications for ridge preservation and methods considered appropriate are discussed.

Australian Dental Journal 2008; 53: 11-21.

Medical emergencies in the dental practice

Greenwood, M.

Medical emergencies can be alarming to any clinician but these situations are less alarming if proper preparation has been made. Medical emergencies occur in dental hospital practice more frequently than in dental practice, but in similar proportions in terms of their nature. A thorough patient history can draw the practitioner's attention to potential medical emergencies that could occur. It is particularly important in the history to enquire about known allergies or adverse reactions to medication so that these can be avoided.

Good methods of practice can prevent many emergencies, for example prompt treatment of a diabetic patient at a predictable time, thereby avoiding hypoglycaemia. In one study there was a perceived need for further training among dental practitioner respondents to a survey on training in medical emergencies.

Dental procedures themselves can jeopardise the airway, which must therefore be adequately protected. Patients with pre-existing medical conditions such as asthma or angina are usually taking prescription medications and the practitioner should always check that these are readily available and have been taken on the day of treatment. Patients who have an asthma attack and who have not brought their normal medication will not be helped significantly by oxygen alone (because of the bronchoconstriction). It is therefore vital that patients with asthma bring their inhalers with them or that they are available in the emergency drug box. The various national formularies, including the *British National Formulary*, list the drugs to be included in an emergency box for the dental surgery. Similar documents may be available in different countries. A further addition to the list in the *British National Formulary* is the benzodiazepine antagonist, flumazenil.

The common emergencies that may occur in dental practice will be discussed in turn and refer to adult patients. In all of these situations the basic principles of resuscitation should be remembered, i.e., attention to the airway, breathing and circulation

(A, B, C). Routes of drug administration are also important and, wherever possible, alternatives are given. Drugs are continually being developed that may be administered by more 'convenient' routes.

Periodontology 2000 2008; 46: 27-41.

Accuracy of impressions and casts using different implant impression techniques in a multi-implant system with an internal hex connection

Wenz, H.J., Reuter, H.U., Hertrampf, K.

Purpose

The aim of this study was to investigate the deviations of the implant positions of both impressions and casts using different impression materials and techniques. Furthermore, the existence of a correlation between the deviations of the impression and those of the cast was investigated.

Materials and methods

A reference model was fabricated with five Frialit-2 implants parallel to each other. In a standardised experimental setting, five stone casts were produced with five different techniques using polyether (A) or polyvinyl siloxane (B to E). In three groups, a direct technique was used with a medium-viscosity material or a putty-tray material in combination with a light-viscosity syringe material (A to C). In two groups, an indirect technique (either one-step [group D] or two-step [group E]) was used with a putty-tray material in combination with a light-viscosity syringe material. The centre-to-centre distances were measured for impressions and casts in the horizontal plane using a computer-aided microscope, and the relative and absolute deviations compared to the reference model were calculated. Analysis of variance followed by the post-hoc Scheffé test (parametric data), or the Kruskal-Wallis test followed by pair-wise Mann-Whitney tests (non-parametric data), were used for statistical analyses. Deviations of impressions were compared with their respective casts using paired t tests and the Pearson correlation coefficient.

Results

No significant differences for the relative deviations were found for impressions (-5 to -8µm) or casts (+7 to +16µm). Group E produced significantly higher absolute deviations for impressions (38µm) and casts (39µm) compared to the other groups (11 to 18µm and 17 to 23µm, respectively). A significant correlation between deviation of the impression and its respective cast was found for every group (r = 0.40 to 0.80) except group D.

Conclusions

The distortions in the horizontal plane of the casts obtained from the impression techniques of groups A to D would probably not

affect the clinical fit of implant-retained superstructures. Because of the high variation of deviations (-113 to $+124\mu\text{m}$), the two-step technique cannot be recommended. The method to measure both impression and cast provided a better understanding of how inaccuracies are caused.

Int J Oral Maxillofac Implants 2008; 23: 39-47.

A critically severe gingival bleeding following non-surgical periodontal treatment in patients medicated with anti-platelet

Elad, S., Chackartchi, T., Shapira, L., Findler, M.

Background

Only a few dental procedures have been reported to cause life-threatening bleeding. All of these cases followed surgical intervention.

Material and methods

In this paper, we report a case of severe bleeding following non-surgical periodontal procedures in a patient treated with a dual anti-platelet regimen post coronary stent insertion.

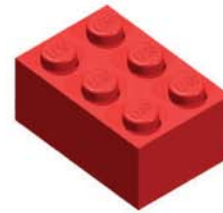
Results

The patient's medical history included ischaemic heart disease, hypertension and diabetes mellitus. Haemostasis was achieved at the conclusion of the non-surgical periodontal treatment. However, several hours later, the patient arrived at the emergency room and was diagnosed with hypovolaemic shock.

Conclusion

This case should raise the clinician's awareness of bleeding complications in non-surgical procedures, as well as the risk for bleeding when a dual anti-platelet regimen is administered. The importance of patient monitoring and the use of local haemostatic agents is demonstrated in these cases.

J Clin Periodontology 2008; 35: 342-345.



**We know
you're perfect
as you are**



**But together
we can build
something better**



irish dental association
cumann fíoclóirí na hÉireann

*Become a member of Ireland's representative body
for dentists today.*

*For details on becoming a member of the Irish Dental Association
contact Elaine on (01) 295 0072 or elaine@irishdentalassoc.ie
and she will forward the necessary application forms.*