

rised by the Vita supplier. Ten of the bridges were cemented permanently with zinc phosphate cement and eight with glass ionomer cement. Clinical evaluation of the bridges were performed according to the California Dental Association's quality evaluation system.

RESULT: After three year evaluation all eighteen bridges were without signs of or any change in colour, and marginal integrity.

CONCLUSION: In Ceram Zirconia is a potential alternative for full ceramic bridges in the posterior segments.

42.

Intraoral Repair of Metal Ceramic Restorations Following Preparation of the Endodontic Access Cavity (Case Reports)

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The Manufacture of dental crowns and bridgework of porcelain fused to metal, a technique that results in highly functional and esthetic restorations, has been widely used for about 45 years. Bonded porcelain is exceptionally strong. However, the reasons for porcelain fracture may be multifactorial, and include where the bridge or crown substructure has been weakened by excessive occlusal adjustment or by the introduction of an endodontic access cavity. An esthetic and functional repair, wherever possible, has many advantages over time-consuming and expensive remakes of crowns and/or bridges.

This report is a presentation of a simple method for both the dentist and the patient to repair a tooth with root canal treatment. In cases where the fracture is due to an endodontic access cavity, intraoral repair was performed using various porcelain repairing kits.

The patients were recalled for follow up on a 3-month basis after treatment. This technique can be considered as a treatment of choice regarding the successful results.

43.

In vitro and *In vivo* Evaluation of Different Gingival Retraction Cords

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Modern impression techniques used in restorative dentistry require displacement of gingival tissue to expose the subgingival finish lines on the tooth preparation. Many different medications are used on gingival retraction cords in order to minimize hemorrhage from the gingival sulcus during impression making. A common method of accomplishing gingival displacement is by packing cord into the gingival crevice. This is especially critical when using hydrophobic impression materials such as polyvinyl siloxanes.

The purpose of this study was to determine whether any of the commonly used gingival retraction medications could inhibit the polymerization of polyvinyl siloxane impression materials when they are in direct contact with the setting material and to evaluate the clinical performance of retraction cords.

Many gingival retraction cords in various shapes, sizes and medications are available on the market. The literature is replete with reports on the effects of medicated and non-medicated cords on impression and gingival tissue. In this study, the number of the criteria of evaluation was increased and both *in vitro* and *in vivo* studies were conducted together by three prosthodontists.

44.

The Potential of Plasma Screen Technology in Small Group Teaching for Dental Undergraduates

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AIM: This study was devised to ascertain the opinion of dental undergraduate students as to whether they preferred observing a live demonstration as a group directly at the workbench or indirectly on a remote Plasma Screen.

In addition, to identify whether the students observing remotely believed that they had been disadvantaged by the inability to question the demonstrator during the demonstration.

METHOD: 17 students divided into two groups observed a live demonstration of a laboratory technical procedure either at the workbench, or remotely on a Plasma Screen with the aid of video cameras. They subsequently observed a second demonstration with the roles reversed. Questionnaires were used to obtain the students' views of their ability to see and interact with the demonstrator.

RESULTS: The responses of the students observing the demonstration on the Plasma Screen indicated that they felt that they were able to see the demonstration more clearly than those observing at the workbench ($p=0.04$). Those observing on the Plasma Screen first, indicated this in particular ($p=0.03$). The majority of students acknowledged their inability to ask questions when observing on the Plasma Screen and supported the idea that the Plasma Screen should be used to complement the demonstration at the workbench.

CONCLUSION: Plasma Screen technology has considerable potential as a teaching tool for small groups of student, where it can afford significantly superior views of practical procedures. The students considered that the Plasma Screen would be best employed to provide close up views to supplement a live demonstration. The apparatus may be used remotely more successfully if video-conferencing technology were also employed to facilitate interaction with the demonstrator.

45. Prosthetic Dentistry on the Internet

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Since the late sixties when the ARPANET- first computer network was developed, Internet has had a great impact on the way of thinking, buying, teaching, learning and everyday life, including dentistry. The beginning of internet in science and research, has proved to be irreplaceable way of communication between researchers all over the world. Currently (April 2002) one of the most popular search engines on the net (Google) indexed about 2 billion web pages, 35 million of non HTML documents and 700 million Usenet messages, which makes the Internet the greatest information service ever.

The purpose of this study was to investigate which part of the web space is taken by prosthetic dentistry and the importance which it gains on the Internet. The method used was standard Internet search engine keyword queries performed using six web search engines: Google, Lycos, Infoseek, AltaVista, Northern Light, HotBot and Excite.

Research results suggest that there is currently (May 2002) about 30 thousand pages (0.0015% of searched web space) which contain terms: prosthetic dentistry or prosthodontics and about one thousand web pictures connected to these terms. Content analysis suggests that quality and real informative value of the majority of those pages is low. To conclude-informative space on the Internet concerning prosthetic dentistry is still in development and the need for confirmation and authorized information is obvious.

POSTER PRESENTATIONS

46. Influence of Sex, Age and Presence of Functional Units on Optical Density and Bone Height of the Mandible in the Elderly

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OBJECTIVES: Mandibular bone height and density were compared with age, sex and the number and type of functional dental units, as represented by Eichner index.

MATERIAL AND METHODS: A sample of 150 elderly patients of the Dental Clinic were divided into three age groups, examined and orthopantomograms/OPG/ taken. The OPGs were taken with the copper stepwedge in order to enable computer-assisted calculation of mandibular optical density and calibration of dimensional measurements by specially designed software.

RESULTS: Eichner class III was found in 62% of patients. The presence of functional units was positively correlated with age ($r=0.67$) and bone height values ($r=0.88$, $p<0.05$). Optical density and bone height values of measurements performed at the same locations on