INTRODUCTION

Ceramic materials provide aesthetic restorations which are able to withstand the oral environment but two appointments are needed to fabricate traditional ceramic restorations by means of an indirect technique. However, single-visit systems are becoming available and one technique, Cerana (Nordiska Dental, Sweden), utilises matched drills with pre-etched and silanated leucite inlays. The final restoration consists of a leucite inlay luted with a restorative composite resin.

Early results were promising and following this a prospective longitudinal trial was set up. This poster presents data which was available up to March 2003 and includes Cerana restorations up to 7 years old.

METHODS

This prospective longitudinal study was initiated in 1996 to investigate the use and longevity of Cerana restorations. The results over 7 years from this study of the 33 Cerana restorations (25 class I, 8 class II) are presented. They were all placed by two operators using a single restorative material and common protocol.

Restorations were reviewed annually and assessed by two examiners using modified USPHS criteria for:

- anatomical form (AF) A-C
- marginal adaptation (MA) A-D
- surface roughness (SR) A-D
- marginal discoloration (MD) A-C
- colour match (CM) A-C
- discomfort (DT) A-D

DISCUSSION

There were no scores less than B and so all restorations remain clinically acceptable and in function. The results suggest that these restorations can be expected to perform well. The inlay colour match stable and the colour match was acceptable. There was a slight loss of marginal adaptation due to loss of marginal resin but no loss of ceramic. The restoration contour was maintained without marginal discoloration. There is a slight increase in surface roughness.

The results are in agreement with other longitudinal studies on Cerana supporting the use of this technique to reduce the bulk of composite resin in a restoration and significantly reduce the problems associated with polymerisation contraction such marginal gaps formation. Cerana appears to perform well and reduce marginal leakage and discolouration. The results so far support the use of ceramic inserts and techniques aimed at reducing the amount of surrounding composite which tends to wear more rapidly that the ceramic insert itself. Contact areas appear to be maintained in class 2 restorations.

Our general experience with Cerana has been that the technique has been quick to learn and simple to use by postgraduate and undergraduate students as well as general practitioners on CPD courses.

REFERENCES