

# Letter to the Editor

Dear Sir

While enjoying your December 2004 issue immensely, I feel that I should point out a number of omissions in the article by Dr Yanikoglu on methods of repair of fractured metal-ceramic restorations, as the author has made several important omissions.

First, it may be relevant to state that there may be a difference in aetiology between early and late failure of metal-ceramic restorations. I feel that early failures, without any history of trauma, may be regarded as deficiencies relating to the laboratory, such as inadequate metal thickness/stiffness which may allow flexure of the restoration and resultant loss of overlying ceramic. Such failures will be impossible to repair in the long term because the primary deficiency cannot be rectified. Other laboratory problems can also be contributory. Late failures, in my experience, are generally a result of external trauma or occlusal trauma. These, I feel, have a good chance of repair.

The second omission is the absence of a reference to a method of metal-ceramic repair which I have found most useful clinically over the past decade (1). I refer to Cojet (3M ESPE, Seefeld, Germany) which is based on the well tried and tested laboratory process Rocatec (3M ESPE). This is a system which blasts the exposed metal surface with aluminium oxide-silica, with the silica becoming impregnated in the outer 10 microns of the metal surface by a tribochemical reaction. Following application of a silane, and the system's opaquer, the defect may be repaired by resin composite.

I have not carried out a structured clinical evaluation of the repairs that I have carried out other than reviewing these after one year, but have not had a failure in 15 repairs using this system. An example of such a repair is shown in *Figures 1* and *2*. Cojet may also be used to treat the metal surface in order to enable the repair to be carried out by a laboratory-made facing, which then may be bonded to the defective crown using a resin-composite luting material.

I hope these comments are of relevance to your journal and to Dr Yanikoglu.

Yours sincerely  
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**Figure 1.** Porcelain fractured off 10 year-old bridge following trauma. Metal surface abraded with Cojet (3M ESPE, Seefeld, Germany) sand in intra-oral sandblaster.



**Figure 2.** Following application of silane, opaquer, bonding resin as per manufacturers' instructions, the defect was repaired with resin composite (Z250: 3M ESPE).