

have occurred (Figure 6e). Screw-retained provisional restorations tend to make the process easier. In all cases, the costs of treatment are likely to be higher than conventional protocols, as they involve more laboratory procedures or more clinical time.

Conclusion

Immediate and early implant placement protocols can offer highly predictable results, which in clinical trials have been shown to be as good, or even better, than traditional protocols.^{1,2,7-9} Immediate restoration protocols may present higher risk of failure,¹⁰ though comparable success rates with conventional protocols have been presented using very careful case selection.¹¹ Many patients seek implant treatment for the benefit of a predictable, long-lasting restoration and are quite prepared to undergo a more protracted treatment schedule. Therefore, immediate protocols should be used where there is a good clinical or patient-centred indication.

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Palmer PJ, Martin Dunitz, 2001). We are grateful to the publishers for permission to reproduce some of the text and figures.

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Abstracts

TO DRILL OR NOT TO DRILL?

Performance of four dentine excavation methods in deciduous teeth. P Celiberti, P Francescut, A Lussi. *Caries Research* 2006; **40**: 117–123.

At the sight of caries, we tend to pick up the drill. However, for a proportion of patients the associated noise and vibration can be very distressing. This is particularly true of children. Therefore, in this *in vitro* study, the authors compared steel burs, hand excavation, polymer burs and the ER:Yag laser for dentine caries removal in primary (deciduous) molars.

Eighty extracted teeth with frank cavitation into dentine were used and split evenly into the four experimental groups. Each tooth was bisected mesio-distally and the cut sections examined by confocal

laser scanning microscopy, digital photography and autofluorescence to determine caries extent. The two halves of each tooth were then re-attached with light-cured resin and caries removed until the underlying dentine felt hard. There were two operators who each removed caries from 10 of the teeth per group.

Not unsurprisingly, results showed that use of a steel bur was the fastest of all the methods tested, with use of the laser being slowest. However, the amount of caries removed by the steel bur was operator-dependent, with one operator significantly over-preparing and the other under-preparing. This variation was not seen with hand excavation, which resulted in the least amount of under- or over-preparation of all systems tested. Clearly, the drill will always have a role in gaining access to a lesion,

particularly where there is no cavitation. However, in primary molars, perhaps we should be picking up our excavators to finish off the job.

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CPD ANSWERS

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|------------|-------------|
| 1. A, C, D | 6. C |
| 2. A, D | 7. C, D |
| 3. B, D | 8. B, C, D |
| 4. B, C | 9. A, C |
| 5. A, C | 10. A, B, D |