



Clinical evaluation of **Cerasmart™**, a new hybrid ceramic CAD/CAM block

A clinical case report by **Dr. Mete Fanuscu** and **Dr. Ahmet Turan**

As digital dentistry rapidly takes centre stage in modern dental practices, advances in material science force dentists to make difficult choices to match each case with the most suitable dental restorative material. In this daily struggle for the perfect indication, few materials step up as the dentist's best choice in terms of their aesthetic properties, physical characteristics and long-term reliability.

In our practice, restoring posterior teeth with inlays, onlays and single crowns using CEREC CAD/CAM is the standard protocol. For fabricating indirect partial restorations (inlays/onlays), our primary choice of material has generally been leucite-reinforced glass-ceramic, which offers adequate physical strength (160 MPa) and great aesthetic results due to its chameleon-like effect. **Problems with leucite ceramic blocks in our experience over years of clinical use include chipping around the margins and breakage in the isthmus areas during the milling phase due to the brittle nature of the material.** In order to bulk up the material in these critical areas, further tooth preparation is needed, which in turn compromises tooth

structure. These blocks also require time-consuming oven firing for correction and characterisation. In our observation, some cases where preparation guidelines were less stringently followed did not perform well enough to withstand occlusal forces, yielding early failures.

In cases like crowns and onlays with functional cusps where restorations will be subjected to greater forces, we have preferred to use blocks made of lithium disilicate ceramic because they offer greater strength (360 MPa) and satisfying aesthetic results. However, using lithium disilicate blocks has its own set of drawbacks. **Because they require a crystallisation firing and often some**



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