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Coronal rehabilitation of endodontically-treated teeth with deep marginal elevation and ceramic endocrown

Aim: This article aims to present an advanced therapeutic approach based entirely on adhesive dentistry.

Background: The restoration of endodontically-treated teeth (ETT) has been widely and controversially discussed in the dental literature, most of which recommends cuspal coverage of ETT to protect against potential tooth fracture. The main goal of conservative dentistry in managing ETT is to achieve minimally invasive preparation with maximal cuspal coverage. The "endocrown" follows this rationale. In addition, proximal caries with deep cervical margins are particularly complex to manage clinically. Moreover, there are various clinical approaches to such challenges, such as placing a base of composite resin to coronally displace proximal margins underneath indirect bonded restorations as known as deep margin elevation (DME) or coronal margin relocation.

Case Description: This study is a clinical case report of an endocrown restoration performed on ETT with extensive coronal destruction. In combination with the clinical procedure presented here, some of the ETT with deep cervical margins were managed by applying direct composite resin restoration using the DME technique.

Conclusion & Clinical Significance: The ideal treatment of ETT has been controversially discussed in the literature. Based on current evidence, endocrowns can be considered as a reliable treatment option for moderately mutilated ETT. The achieved adhesive monoblock system reduces the need for macro-retentive geometry and provides an efficient outcome and better esthetics. Furthermore, the DME technique represents another useful treatment approach for patients with financial restrictions and those with higher risk of negative outcomes involving more invasive surgical procedures. Thus, it could be used in clinical situations with deep subgingival cervical margin where isolation with a rubber dam remains possible.

Biography

Areej Ayed Derham has completed her BDS from King Abdulaziz University, Faculty of Dentistry. She is a seasoned dentist with experience in all phases of four-handed dentistry. Successfully challenged the global board of human development and became a dimplomate in both Applied Psychology and Sign Language. Member of International Association of Dental Research, Behavioral, Epidemiologic and Health Services, and Arab Society for Disability and Oral Health. Recently joined the Global Oral Health Inequalities Research Network.

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