

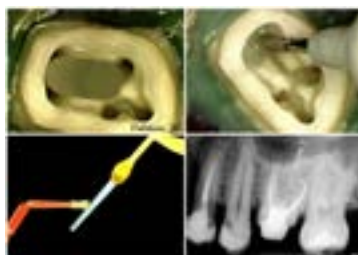
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Concept of simultaneous crown-root shielding in Endodontics using CAD-CAM technology

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The integrated approach of endodontic and restorative procedures of dental elements allow for the reincorporation of the endodontically treated tooth to its function in the stomatognathic system. Scientific literatures understand that a tooth that has been treated endodontically has become weakened due to changes that occur in its structure during this procedure. These teeth undergo modification in its architecture and morphology due to great loss of dental structure due to caries, preparation and cavity extension. This therefore makes the endodontically treated tooth more friable. Thus, simultaneous crown-root shielding seeks to recover the structural resistance of the endodontically treated tooth. This chapter will discuss endo-restorative planning, simultaneous preparation of the canal and post space preparation for intraradicular posts, apical obturation, cementation of posts and final restoration or preparation of the prosthetic crown. Furthermore, we will address factors that have a direct influence on the success of restorative procedures of endodontically treated teeth such as aspects of root dentin, ultrasonic post space preparation with minimum dentin wear, post adaptation to dentin walls, selection and types of current intraradicular posts and current restorative materials.



Recent Publications

1. Valdivia J E, Nabeshima C K and Machado M E L (2018) Concept of simultaneous crown-root shielding in endodontics. Oral Health and Dentistry 2(5):456-464.
2. Nabeshima, Cleber Keiti, Valdivia, José Edgar, Caballero-Flores, Hector, Arana-Chavez, Victor Elias, Machado and Manoel Eduardo de Lima (2018) Immunohistological study of the effect of vascular endothelial growth factor on the angiogenesis of mature root canals in rat molars. Journal of Applied Oral Science 26:e20170437.
3. Valdivia J E and Machado M E L (2017) Simultaneous crown root shielding in endodontics: from root preparation to coronary restoration. Dental Press Endod. 7(1):32-42.

Biography

Jose Edgar Valdivia is an endodontic specialist with emphasis and line of research on restoration of endodontically treated teeth. He proposes the preparation and simultaneous integration of restorative endodontics with concepts applied to the clinic DDS, MSc and a PhD student in the Department of Restorative Dentistry, School of Dentistry and University of São Paulo, Brazil. He is a Professor of the Post Graduate Courses in Endodontics of the Association Paulista of Dental Surgeons, São Paulo, Brazil. Apart from these he is also a Clinical and Scientific Speaker of Superdodont, São Paulo, Brazil.

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