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From past to present, from apexification to pulp regeneration, what are these treatment limitations?

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Introduction: There are some major concerns and several clinical challenges that must be bypassed when treating permanent teeth with non-vital pulp and open Apices. Sealing Apices requires a special method of treatment. Giving opportunity to APICES for full formation is regarded as the best solution. To attain this, the apexification method has been advised for some years. The length of the treatment as well as the possibility of a dentin wall fracture was the main problem for this method. The artificial apical barrier method with mineral trioxide aggregate (MTA) has somehow improved the patient compliance but still cannot stimulate the development of apical closure and thickening of radicular dentin. Revascularization of the pulp followed by continued root development can occur under ideal circumstances as the newest treatment plan for such immature permanent teeth.

Aim of Case Reports: In this presentation after a review of the regenerative procedure with the recent American Association of Endodontics calcium hydroxide recommendations some of the cases of revascularization will be discussed.

Conclusions: Although the clinical management of the open apex teeth is challenging and the outcome of the revascularization procedures remains somewhat unpredictable, when successful, they are an improvement to treatment protocols, and can also leave the door open to other methods of treatment in addition to extraction when they fail to achieve the desired result.

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Effect of biomimetic oral appliance therapy in adults with obstructive sleep apnea

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Biomimetic oral appliance therapy (BOAT) represents an alternative to continuous positive airway pressure or mandibular advancement devices for treating obstructive sleep apnea (OSA) in adults. Therefore, we tested the hypothesis that the upper airway can be improved in adults diagnosed with mild, moderate and severe OSA using BOAT. For this study, we recruited 17 consecutive adults aged >21yrs diagnosed with OSA after an overnight sleep study that was interpreted by a Sleep physician. The mean apnea-hypopnea index (AHI) of the sample was calculated prior to and after BOAT, and the findings were subjected to statistical analysis, using paired t-tests. In this study, 9 subjects were diagnosed with mild to moderate OSA (mOSA; AHI<30) and 8 subjects with severe OSA (sOSA; AHI>30). Prior to treatment the mean AHI was 13.2±7.2 for the mOSA group. The mean treatment time was 8.7 mos. ±5.8 and the mean AHI fell by 66% to 4.5±3.6 (p=0.002) after BOAT. For the sOSA group, the mean treatment time was 10.4 mos. ±2.6 and the mean, pre-treatment AHI was 46.6±12.0. After BOAT for the sOSA group, the mean AHI fell by 70% to 13.9±10.5(p=0.001). This study supports the notion that BOAT may be successful in reducing the AHI in adults diagnosed with mild, moderate and severe OSA. However, long-term follow up and larger sample sizes are needed to determine whether these initial upper airway improvements can be maintained.

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