



Dens evaginatus is most common in Asians and often appears as a 'central' cusp on premolars. The enamel/dentinal coverage of this 'third' cusp is wafer thin. It can be chipped or broken easily with normal function. This Achilles heel of the occlusal table leads to exposure of the pulp and often an asymptomatic cascade to necrosis. Non-vital immature permanent teeth with an apical lesion pose many clinical challenges:

- Blunderbuss apex is nigh impossible to seal adequately with prevailing obturation approaches
- Canals are so large mechanical instrumentation is problematic
- Root walls are thin and weak
- Root length is short providing poor anchorage
- Young patients are not oft ardent fans of endodontic treatment

Historically, apexification was the preferred treatment for such teeth. It requires the long-term application of $\text{Ca}(\text{OH})_2$. Below are some of its disadvantages:

- Highly variable treatment time
- Multiple appointments often required
- Unpredictable and atypical apical closure
- Increased susceptibility to fracture due to long-term $\text{Ca}(\text{OH})_2$ exposure
- Calcified tissue formation in canals

One visit apexification with MTA is more time prudent and enjoys a better survival rate than traditional apexification with $\text{Ca}(\text{OH})_2$. However, it results in little to no increase in root width. Regenerative endodontic treatment (RET) also known as vital pulp therapy or dental pulp revascularisation is now the treatment of choice for immature permanent teeth with a necrotic pulp. RET's unique features include:

- Canals are not instrumented to length
- Canals are copiously irrigated to encourage bleeding
- Canals are then dressed with antimicrobial medicaments

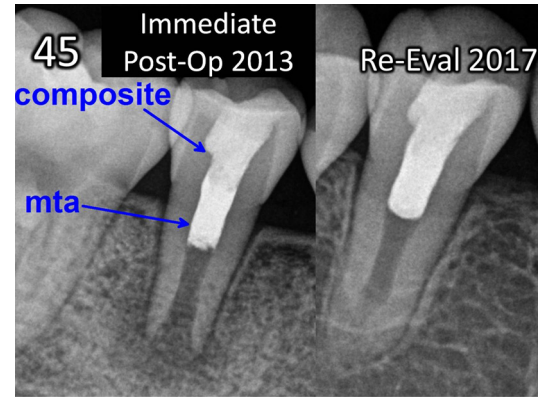
RET is able to achieve an increase in root length and width that eludes apexification techniques. The images above are of a case I treated. The nine year-old girl had a history of swelling and pain on the lower right. The 45 had a necrotic pulp with symptomatic apical periodontitis and an immature root. Other premolars were examined and the 35 was discovered to have pulp necrosis with asymptomatic apical periodontitis. All other premolars were vital and free of dens evaginatus.

Four years later both teeth are asymptomatic and functional yet with two unique responses. There are more impressive results with RET in the literature. Nevertheless in the spirit of season I wanted to share this interesting case of mine. For many Christmases to come, this young girl will be able to enjoy these two teeth and that is dens-tastic.

Regards,



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Happy Holidays!

FROM THE

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