

External root resorption: Arrested or progressing?

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Abstract

External root resorption may be an uncontrolled phenomenon, and the most known interventions have no effect. Even progressive external root resorption may not be controlled by long term Ca(OH)₂ therapy. Currently, there are no treatment options for vital tooth that suffer from root resorption. This invasive resorption can lead to extraction of the tooth. The use of new technologies such as low power laser may control this type of resorption. (*Iranian Endodontic Journal* 2008;3:93-4)

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Core of idea

External root resorption is an inflammatory reaction that is progressive because of a present or past traumatic injury, or an unknown cause (1-3). Also some dental treatments such as orthodontics or bleaching lead to external root resorption. In some teeth with necrotic pulps, intra canal medicaments such as Ca(OH)₂ have been shown to have moderate healing effects. Vital teeth that undergo resorption process have two popular treatment options:

1- intervention with intra canal medicaments independent of tooth vitality

2- Monitor the resorption process.

Intra canal medicament is not ideal because of uncertain results in vital teeth.

Low power lasers have been shown to have good effects on controlling proliferation and migration of inflammatory cells to the site and can be used only over the area without any serious manipulation (4,5). It is obvious that use of some materials or stains for example methylen blue could improve the therapeutic effect of laser. On the other hand, it seems that dentinal tubules act as fiber optic paths that

conduct laser beams to the resorption area increasing the localized effect of the laser. This phenomenon is similar to some irrigants that increase the diffusion of hydroxyl ion over the dentin, in exposed canals.

We hypothesise that the use of this technology immediately after treatment plans such as bleaching or orthodontics may control unwanted side effects ie, root resorption. Use of low power laser may be effective even after beginning of this destructive process.

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