THE POSSIBILITY OF USING ULTRASOUND IN ENDODONTICS: REVIEW

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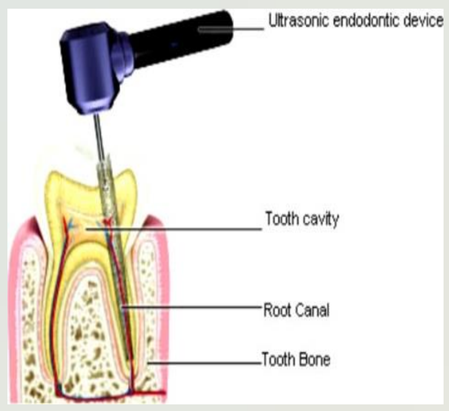
Introduction

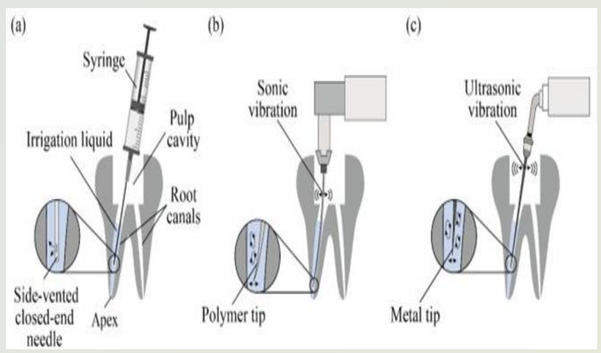
Over the past few decades, endodontic treatment has benefited from the development of new techniques using newer instruments like ultrasonics. Using ultrasonics in general dentistry practice, and particularly in endodontics, gives better predictability and outcome of endodontic root treatment.

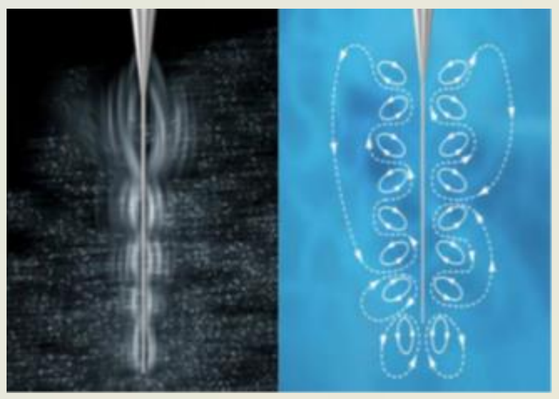
Aim: The purpose of this research is by reviewing the literature, show in detail the use of ultrasound in certain phases of endodontic treatment of root canals, and critically evaluate the benefits and possible unwanted consequences on the outcome of endodontic treatment.

Material and methods

For the preparation of this paper, a literature search was used through the electronic database: MEDLINE® PubMed®, Science Direct® . Key words entered in the search field. The publications obtained from the search were reviewed on inclusion and exclusion criteria. Inclusion criteria used in this review search are: published studies written in English and studies for which the full text is available for review, to be a review article. Exclusion criteria are: studies that are duplicates. In this way, the definition of coned studies was limited.

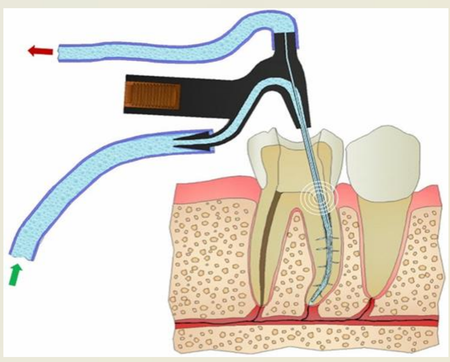






Results

Ultrasound has been proven to provide better visualization, access and considerably shortens the duration of endodontic treatment. During ultrasound work we will have better irrigation compared to traditional irrigation with a syringe, ultrasound removes more organic tissue, planktonic bacteria and dentin particles in the root canal. The ultrasonic method of placing the sealer in the root canal is more thorough than placing the sealer with manual instruments, and ultrasonically condensed gutta-percha is more homogeneous and has fewer cavities than gutta-percha condensed by classical lateral condensation.The audit of root canal filling is facilitated by ultrasound, and also instrumentation is more successful in removing broken instruments and intracanal extensions.



Conclusion

The ultrasound device has the potential to become routinely incorporated into almost every step of endodontic treatment and retreatment.The evolution of dentistry is strongly correlated to the development of science and technology.