RESULT AND DISCUSSION:

Effective endodontic treatment requires bothphysical and chemical agents to remove soft-tissue debris, smear layer, and microorganisms because buildup of debris in the root canal system makes effective cleaning and disinfection . The use of lasers at different wavelengths has been proposed to supplement conventional endodontic cleaning procedures.(3)

From the study conducted, it can be seen that most of the respondents are not much aware of the laser technique that is used in dentistry.

It is seen that, 71.7% of the respondents have seem to known about laser technique that is been used in endodontics. About 11.3% claims to have known it through certain CDE programs and few through friends and few from attending classes and a few responded a no for the question.

About 94.3% find laser program training to be useful. As they can implement it in their procedures.

About 71.7% of the respondents find passive ultrasonic irrigation to be effective. This can be due to the fact that ultrasonic irrigation is more effective than sonic irrigation in the removal of dentine debris from the root canal.(4)

About 67.3% of the respondents say that laser does not cause dissemination of bacteria during infection. This might be due to various wavelengths, generally Nd: YAG which is found to effective in reducing microbial masses in canals.(7)

About 72.9% of the respondents find photo-activated disinfection can be used as a supplement in irrigation of canals. Samiei M,et al have stated that photo dynamic therapy was effective in reducing *E.faecalis.* (6)

About 81.8% of the respondents say Nd: YAG to be effective in removal of debris of smear layer. Zahed Mohammadi, et al have stated Nd:YAG laser irradiation have been found to reduce number of bacterias in the canal, significantly.(2)

The respondents find that laser used in disinfection can cause damage to the periapical area

Particularly when roots are close to anatomical relations such as mental foramen or maxillary sinus. 52.4% of the respondents have agreed to it.

About 82.7% of the respondents seem to have known about PIPS in endodontic disinfection . DiVito E, et al have stated that Photon Induced Photo-acoustic Streaming(PIPS) uses an Erbium 2,940 laser to pulse extremely low energy levels of laser light to generate a photo-acoustic shockwave, which streams irrigants throughout the entire root canal system.8 Using extremely short bursts of peak power, laser energy is directed down into the canal and the action actively pumps the tissue debris out of the canals while cleaning, disinfecting and sterilizing each main canal, lateral canals, dentinal tubules and canal anastomoses to the apex.(8)

About 44% of the respondents say that laser can be used for both retreatment cases and regular cases. 22% of them find lasers to be used in regular cases only and 34%of them find lasers to be used in retreatment cases only.

38.8% of the respondents have said that lasers disinfect both main canal and lateral canal. 24.5% of them say laser disinfects lateral canal only and 36.7% say lasers disinfect main canal only.

Say, about 49% of the respondents find increase in temperature caused by laser will not cause any deleterious effect to the tooth. Penn C, Beninati C have stated that On average, the pulpal temperature of teeth ablated with the Waterlase MD system increased the most (3.56°C). The Midwest High Speed Hand piece caused the lowest average temperature increase (1.57°C), followed by the LightWalker DT system (3.20°C) and the Solea system (3.30°C). (9)

About 64.3% of the respondents have said that laser can bring about better repair of fistula in the chin due to periapical lesion around the root apex of the tooth.

60.4% of the respondents feel lasers can extend to inaccessible areas such as biofilm of root apex of the tooth.

CONCLUSION :

From the study conducted, it can be concluded that, 94.3% of the respondents find laser training useful, but not many are aware of the techniques used in lasers and its action in infected canals of the tooth. Hence, it is necessary for the dentists to know the techniques used in lasers so as to implement the same in their practise.

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