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ROLE OF PHYTOMEDICINE AGAINST *E.FAECALIS* IN ROOT CANAL TREATMENT –AN UPDATE IN DENTISTRY

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ABSTRACT

Phytomedicine have been used since ancient times in folk medicine for the management of various disease conditions. In dental practice herbal products have gained use as an anti inflammatory, analgesic, antiseptic .anti bacterial, anti plaque agents and also as Root canal Irrigant. This article focuses on various scientific studies that justify the potency of herbal medicine as an antibacterial agent against *E.faecalis* in treatment of Root canal failure that primarily occurs during Endodontic procedure.

Keywords: Phytomedicine, Root canal Irrigant, *E.faecalis,* Root canal failure, Treatment.

INTRODUCTION

Root canal treatment is the disinfection of the root canal system, using Endodontic instruments aided by an antimicrobial agent[1]. *E. Faecalis* is believed to be a normal inhabitant of the oral cavity. The prevalence of *E. Faecalis* is increased in oral rinse samples from patients receiving the endodontic treatment; *E. Faecalis* is associated with different forms of periradicular disease including primary endodontic infections and persistent infections[2].

E. Faecalis can adhere to the root canal walls, accumulate, and form communities organized in bio film, which enables the bacteria to become highly resistant to phagocytosis, antibodies, and antimicrobials than non–bio film-producing organisms .The most effective method to eradicate *E faecalis* is the use of Sodium hypochlorite and 2% Chlorhexidine[3].

Various literatures reveal the use of Sodium hypochlorite has disadvantages like unpleasant taste, toxicity, and potential weakening of the tooth structure by decreasing the hardness and structural integrity of the dentin within the root canal[4]. Medicinal plants that represent a rich source of antimicrobial agents are found to be effective against *E.faecalis* and further used to prevent the failure of root canal treatment. Having read with great interest in an article titled "Role of herbs in endodontics"-An update by Sharad kamat *et al.*[5], we wanted to focus on how the Herbal medicine has the potential to influence Antibacterial properties against *E.faecalis*. Improved dissemination of drugs and heightened efficacy, the current need of the hour, are now possible with the use of herbal medicines which increases the ability to

eradicate infectious diseases without significant toxicity and helps reduce the amount of drug required, the number of doses and bio inactivation.

Anti bacterial activity against *E.Faecalis*

According to a study conducted by Geetha and co workers suggested that Ethanolic extract of *Acacia catechu* heartwood[6] is effective than Aqueous extract as an antibacterial agent against *E.faecalis* and provides an aid to prevent the root canal failure during Endodontic treatment.Dhanya kumar *et al* in his study proved that *Acacia nilotica* and *Syzygium aromaticum* extract as an beneficial antimicrobial agent against *E.faecalis* which reduces the root canal microflora and root canal failure[7].

Bokhora and co workers in their findings concluded that the neem (*Azadirachta Indica*) leaf extract has significant antimicrobial effect against *E.faecalis* derived from infected root canal samples. Similar study conducted by Naiyak Arathi *et al* also found that Aqueous and Ethanolic extract of Neem (*Azadirachta Indica)* leaf showed significant antibacterial activity against *E.faecalis*[8].

CONCLUSION

Medicinal plants have a rich source of novel ingredients which are biologically active with least side effects. Hence, use of traditional medicinal plants will certainly boosts our fight against *E.faecalis* and there is an obvious need for its far-reaching use in Endodontic treatment to prevent the Root canal failure.

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Conflict of Interest: Nil

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