

## **ABSTRACT**

### **AIM:**

To analyze the antimicrobial efficacy of different herbal extracts such as Aloevera , *Ricinus communis* and Lemon as intracanal medicament when compared with calcium hydroxide against *Enterococcus faecalis*.

### **MATERIALS AND METHODS:**

Extracted single rooted mandibular premolar teeth will be selected , decoronated and will be instrumented with k-files and bio mechanical preparation is done . It is then inoculated with *Enterococcus faecalis* .The teeth is then incubated for 21 days. The different herbal extracts will be obtained and placed inside the canal as intracanal medicament.After seven days of placement , the efficacy of the herbal extracts against *E.faecalis* will be assessed using culture study and confocal Laser scanning microscopic study.

### **RESULTS:**

The results obtained from colony counting and confocal laser scanning microscope revealed that complete elimination of bacteria is not achieved in any of the experimental groups. Calcium hydroxide is more effective than the other herbal medicaments used. Among the herbal extracts, Aloevera was more effective in causing reduction of *Enterococcus faecalis* followed by Lemon and *Ricinus communis*.

### **CONCLUSION:**

Calcium hydroxide is more effective than the other herbal medicaments used .Aloevera and Lemon has shown good antimicrobial effect against *Enterococcus faecalis*. However, the medicament that is effective against single microbe in vitro may not necessarily be effective

against the same microbe in vivo because root canal system contains multiple microorganisms.

**Keywords:** Calcium hydroxide, Aloevera, *Ricinus communis*, Lemon, *Enterococcus faecalis*.