

PH19: How Long Can a Mobile Tooth Survive in the Mouth?

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ABSTRACT

Introduction: Periodontal therapy improves the health of tooth supporting tissues but predictability of mobile teeth retention in mouth following therapy is still uncertain. **Methods:** This study aimed to determine the survival of mobile teeth in patients with periodontitis following supportive periodontal therapy (SPT). Data from case notes of 100 patients treated for five years by a periodontist at a government dental clinic including number of teeth present, type of teeth, degree of tooth mobility and reasons for tooth extraction were used. **Results:** Most of the mobile teeth were extracted within first year of treatment (n=122, 18.12%) and amongst these were mostly molars (n=56, 8.32%), followed by cuspids (n=36, 5.35%) and incisors (n=30, 4.46%). It was found that the number of teeth extracted decreased from the first year (12.18%, p=0.0008) to fifth year (1.43%, p=0.0008) with difference of 8.8%, 2.15%, 0.34% and 0.54% annually. The most profound reason for tooth extraction was disease progression and/or recurrence (n=105, 15.06%, p=0.001). Additionally, severity of tooth mobility was shown to improve with time following therapy from Grade3 (n=62) to Grade2 (1.45%, p=0.98), and Grade1 (0.36%, p=0.77); from Grade2 (n=183) to Grade1 (3.27%, p=0.97) and No mobility (17.6%, p=0.09); and finally from Grade1 (n=428) to No mobility (59.89%, p=0.0002) respectively. **Conclusions:** Our study showed that most mobile teeth, particularly molars, in patients with periodontitis although given SPT, were likely to be extracted within the first year of treatment. Nevertheless, with continued and timely supportive care, mobile teeth can survive longer in the patients' mouth.

KEY WORDS:

Periodontitis, tooth mobility, supportive care

PH20: The Effect of *Zingiber officinale* Roscoe (Ginger) on Dentine Microhardness: An In-Vitro Study

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ABSTRACT

Introduction: *Zingiber officinale roscoe* (ginger) was reported to have significant antibacterial effect against several tooth root canal microorganisms, hence its potential as root canal irrigant was explored. **Methods:** This study was conducted to investigate the effect of *Z. officinale* rhizome oil on root dentine microhardness. Sixty root halves of extracted human teeth were used and prepared by embedding them individually in autopolymerizing acrylic resin. These samples were then divided into three groups (n=20 each). Microhardness was measured using Vickers Microhardness Test machine with 50g load and a 10-second dwell time, before and after immersion in solutions i.e. 0.5% oil, 2.5% sodium hypochlorite (NaOCl, positive control) and normal saline (negative control) for 5 min. Measurements were taken in Vickers hardness units (VHN). **Results:** All samples showed reduction in the microhardness reading from 34.238, 31.465 and 29.818 to 25.887, 26.338 and 27.612 VHN (oil, NaOCl and saline) respectively. Although there was significant reduction within the *Z. officinale* group (p=0.0001), the change was indifferent when compared among groups (post hoc Tukey's HSD test p > 0.005). **Conclusion:** As an effective antibacterial agent, *Z. officinale* oil also demonstrated in this study to be comparably safe as canal irrigant as it does not significantly alter dentine microhardness.

KEY WORDS:

Zingiber officinale, dentine, irrigant, microhardness