

Comparison of Effectiveness of Ear Syringing with or without Pre-Ear Oil Application , Non-randomized Control Trial

Wells Chang, Maria Leung Kwan Wa, Eric Hui Ming Tung, Leung Shuk Yun, Chan Lit Ping, Lee Chik Pui, Cheung Hard King.

Department of Family Medicine and Primary Care, New Territories East Cluster, Hospital Authority , Hong Kong

- **OBJECTIVE:** To compare the success rates and complication rates of ear syringing with and without pre-olive oil treatment.
- **DESIGN:** Prospective multicenter controlled trial.
- **SUBJECT:** Patients >5 years old, who were found to have impacted earwax in 3 general outpatient clinics in Hong Kong.
- **MAIN OUTCOME MEASURES:** The success rates of ear syringing, and mean numbers of syringing attempts (and 95% confidence interval) were calculated for those with or without pre-ear oil application. And compared by testing the difference between the means, using a t test for independent samples.
- **RESULTS:** 122 patients (163 ears) were recruited for analysis. 68 patients (80 ears) received no olive oil and 59 patients (83 ears) received olive oil. There was no significant difference in the success rates of ear syringing with olive oil (80/83, 96.4%) and without olive oil (73/80, 91.3%) (P=0.205). The overall success rate of ear syringing was 93.9% (153/163). However, the olive oil group required significantly less number of ear syringing when compared to the non-olive oil group (2.46 vs 3.5; Interquartile range 1-4 vs Interquartile range 1-3) (table 1). Overall rate of ear canal bleeding was 8% (13/163). For those with ear canal bleeding, 84.6% (11/13) were medium to hard earwax while 15.3% (2/13) were soft earwax.
- **Conclusion:** This study showed that family physicians in a GOPC can manage most of the cases of earwax successfully even without preceded olive oil application. Therefore, for earwax which was soft to medium soft in nature, it is worth trial of ear syringing without pre-ear oil application which can save the 2nd consultation time and have immediate relief for patients.

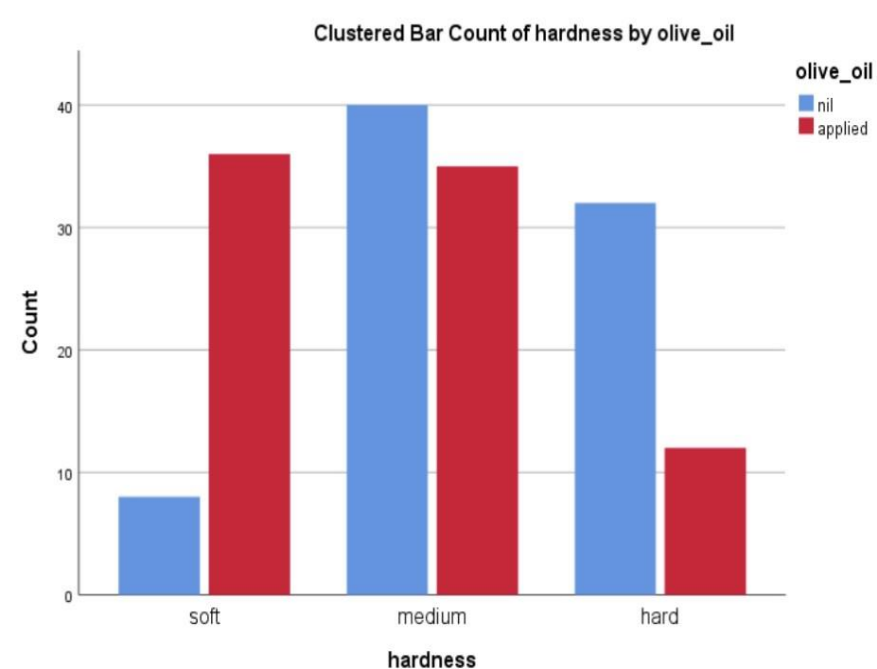


Figure 1 Frequency of Hardness of Earwax among both groups

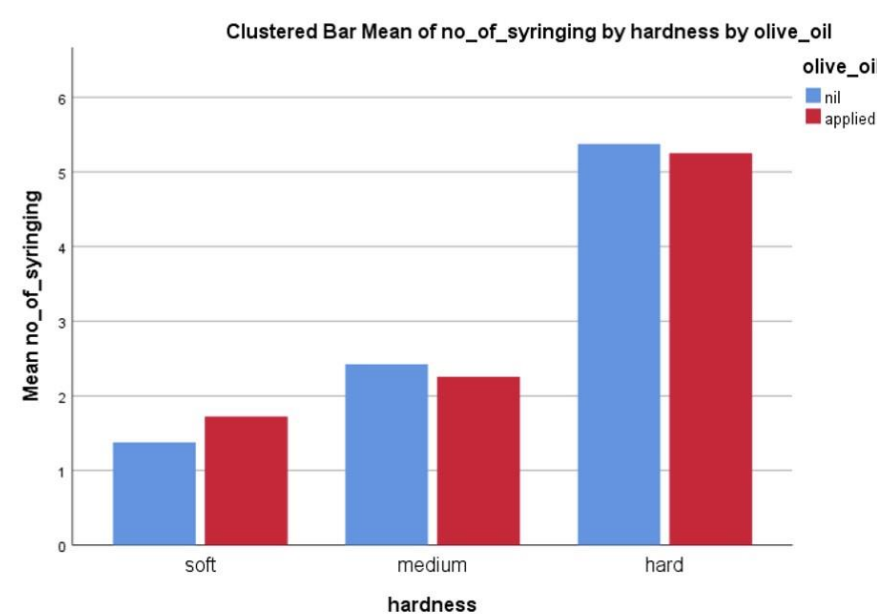


Figure 2 Mean Numbers of Syringing among both groups

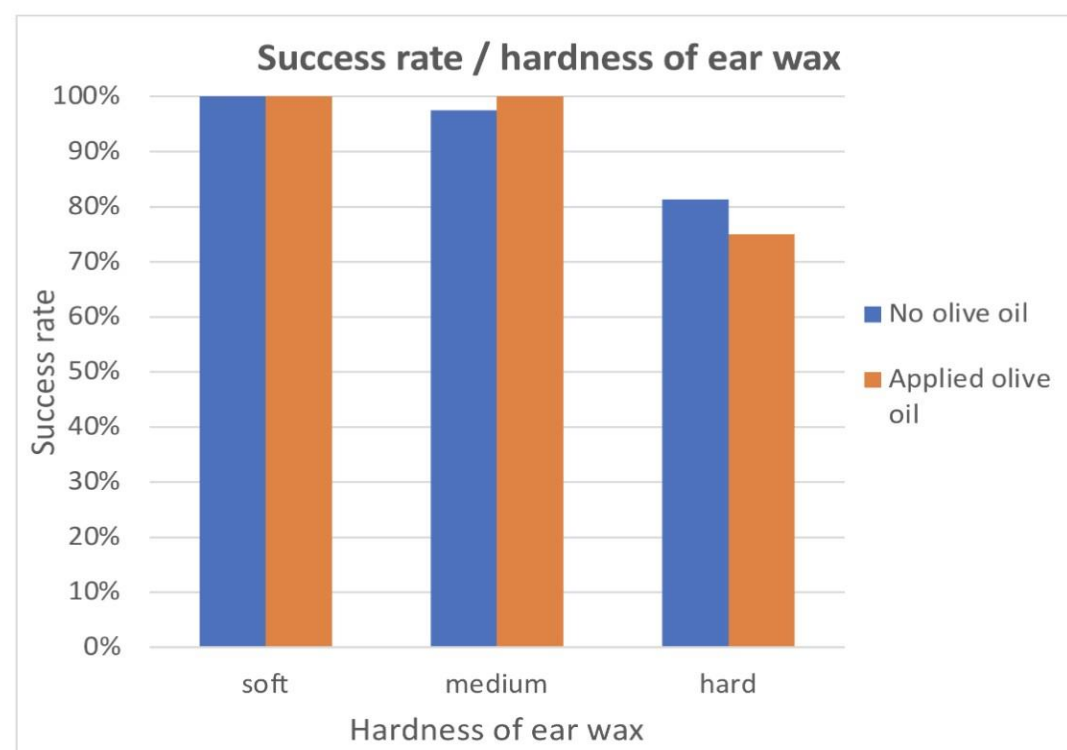


Figure 3 Success Rates of non-olive oil group vs applied olive oil group by the degree of Earwax Hardness