THE PAIN RELIEVING EFFECT OF KINESIOTAPING ON DENTAL PAIN: A PLACEBO-CONTROLLED TRIAL
Mubarak, H.(1)*; Mayasari, N.(2); Thahir, H.(3);
(1)Faculty of Medicine, Hasanuddin University, Department of PMDI, Makassar, Indonesia;
(2)Dept of PMDI, Wahidin Sudirman Sastro Hospital General Hospital;
(3)Dept of Periodental, Faculty of Dentistry - Hasanuddin University.

Introduction
Kinesiotaping is currently appreciated as a practical and low cost management for relieving pain, with relatively minimal adverse event. It has been used by so many respected names in sports. It has been proven in edema control, tissue support, joint protection, and relieving heat produced from active inflammation. Dental pain arises from various pathology in oral cavity, mostly from tooth impaction and pulpitis. Dental pain limiting patient to daily activity involving oral cavity, like chewing, swallowing, and facial mimicking. Clinical application of kinesiotaping in patient with dental pain are rarely reported despite its potential to ameliorate pain and improve function.

Method
A randomized, placebo-controlled clinical trial was performed to assess the effect of kinesiotaping on reducing dental pain. The primary outcome were VAS (Visual analog scale), milligrams of analgesics taken, and numbers of mastication strokes eliciting pain (masticatory pain tolerance). These data was recorded before treatment, during treatment, and 1 day after tapes are released. Independent and paired t-tests were used for analysis. Sixteen patients randomly allocated to two groups: First group to receive kinesiotaping application (Group I) and another to receive placebo cohesive tapes (Group II). KinesioTex™ and the placebo tape with skin color were used. Both group received acetaminophen as analgesics.

Results
There was significant difference on treatment groups from VAS decrease during treatment (ΔVAS1 = 9.62; and ΔVAS2 = 4.62; P=0.005) and after treatment (ΔVAS1 = 4.875; and ΔVAS2 = 0.375; P=0.02). From the masticatory pain tolerance variable in Group I also showed significant improvement compared with the control group for during (ΔNMAS1 = 5.88; and ΔNMAS2 = 1.75; P=0.004) and after treatment (ΔNMAS1 = 3.875; and ΔNMAS2 = 1.5; P=0.013). From mgs of acetaminophen taken, there is significant difference on groups during treatment (ΔACT1 = 750 and ΔACT2 = 93.75; P = 0.001) but there was no significant for after treatment (ΔACT1 = 406.25 and ΔACT2 = 125; P = 0.053).

Conclusion
This study suggests Kinesiotaping would bring benefit in management of dental pain during treatment and one day after treatment. Decrease of VAS mean patients’ functional performance in mastication would improve and dependency on oral medication would decrease too. As a very simple method of treatment Kinesiotaping have bigger possibility to be a routine adjuvant therapy in management of dental pain.

References