## COMPARISON ON CALCIUM ION CONCENTRATION OF SALIVA AMONG ACTIVE NARCOTIC USERS, PASSIVE NARCOTIC USERS, AND NON-NARCOTIC USERS

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**Introduction:** Saliva has many important functions. Saliva can be used as diagnostis aid instead of blood and urine. Calcium ions of saliva take part in the metabolism of narcotic drugs. The aim of the research is to determine the difference of calcium ion concentration of saliva among active narcotic users, passive narcotic users, and non-narcotic users.

**Materials and Methods:** This research was done on 1.5 cc saliva of 24 male subjects aged 20 to 40 years. The subjects were divided into three groups. They were active narcotic users, passive narcotic users, and non-narcotic users. The saliva was taken in the morning at the minimum of 2 hours before cigarettes, foods, and beverages consumption. The calcium ion concentration of saliva was measured by Automatic Chemistry Analyzer Beckman Synchron CX7 Spectrofotometer. The data were analyzed by ANOVA and LSD.

**Results**: The mean of calcium ion concentration of saliva were a) active narcotic users  $1.29 \pm 0.39$  mmol/L; b) passive narcotic users  $1.33 \pm 0.19$  mmol/L; and c) non-narcotic users  $1.88 \pm 0.7$  mmol/L.

**Conclusions:** There was significant difference among active narcotic users, passive narcotic users, and non narcotic users. Narcotic users tended to have lower calcium ion concentration than non-narcotic ones.

## **Refferences:**

- 1. Mandel, I., D., 1990, The Diagnostic Uses of Saliva, J Oral Pathol Med; 19(3): 119-25.
- 2. Chiapin, S., Antonelli, G., Gatti, R., De Palo, E.F., 2007, Saliva Specimen: A New Laboratory Tool for Diagnostic and Basic Investigation, *Clinica Chimica Acta 383*: 30-40.