An-Najah National University

Faculty of Medicine and Health Sciences

GRADUATION PROJECT

Assessment of calcium levels in the serum of breastfeeding women among different regions of the West Bank of Palestine

Students

Aya Abdi: 11541588

Diana Bani Odeh: 11541571

Supervisor
Ramzi Shawahna, PhD

This graduation project is submitted in partial fulfilment of the requirements for the degree of Doctor of Medicine (MD) from the Faculty of Medicine and Health Sciences, An-Najah National University, Nablus

Abstract

Background: Calcium is the most abundant mineral in the body. it's necessary for fetal skeleton formation and to protect women from osteoporosis.

Objectives: our main aims were to evaluate the serum calcium levels among lactating women in different 5 main regions of the West Bank of Palestine and to explore the impacts of some sociodemographic variables on calcium serum level.

Methods: We collected serum calcium samples from 160 lactating women from Nablus, Jenin, Hebron, Qalqelia, and Tubas cities and analyzed them for their using graphite furnace atomic absorption spectrophotometry. Lactating women were interviewed and responded to a sociodemographic questionnaire.

Results: The median was 93.28 mg/L, the range was 86.65 -100.63 mg/L. The comparison between the sociodemographic variables showed the calcium levels were higher in women with a history of constipation (P-value =0.016), history of skin dryness (p-value = 0.035), history of muscle spasm (p-value =0.036), women using hair dyes (p-value =0.043), and women having wood oven (p-value = 0.025). However, There were no statistically significant correlations with age, residency, number of children, smoking, lactation period, employment, income, education, history of teeth decay, use of metal soap, consumption of eggs, history of general weakness, consumption of green leafy vegetables and feeling active during menses (p-values > 0.05).

Conclusion: Calcium levels were within the normal range for the majority of the breastfeeding women. Levels were influenced by some socidemographic anc clinical variables.