Document Type: Thesis

Document Title : <u>Parathyroid hormone as an indicator for vitamin D level in school children</u>

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Document Language Abstract : Arabic

: The endocrine system consists of a number of glands that secrete liquid into the blood stream. Parathyroid hormone containing granules fuse with the plasma membrane, after which membrane rupture occurs and PTH is exuded into the blood stream. The sample of student volunteers were divided into two groups, group A and B. Group A included 76 female subjects, whereas group B included 102 male. The serum of the two groups were examined in the following parameters, a) determination of parathyroid hormone (PTH)concentration and b) determination of serum calcium level. The food frequency questionnaire(FFQ) forms were given to each one of the volunteers to be completed according to the daily habitual food intake for each one and then returned the complete form. The data collected from food frequency questionnaire(FFQ) has been analyzed via computerized Minitab statistical program. The results obtained from this study revealed a significant differences between boys and girls in the above parameters, for instance the results of PTH level in girls were ranged between normal rang (1.61 pmol/L) to very high concentration(40.01pmol/L) whereas the boys level ranged between lower level(1.1 pmol/L) to moderate level(6.9 pmol/L). The level of calcium in the girls has shown in the normal range(2.15-2.55mmol/l) with a few girls has lower than the normal range. The level of Ca+2 in the boys has shown also in the normal range except a few number are lower than the normal range. The FFQ analysis for both groups (boys &girls)have shown a significant and an interest results. Due to an immense data presented in FFQ, we summarized some interest results in this part for instance, there were a significant differences between boys and girls in the consumption of the fifth groups(I - V) of food pyramid guide, the general conclusion found that the boys were consumed an amount of food more than the girls. Although the girls ages ranged between 12-15 years(Ave14±3year), more than 50%(57.89%)has monthly period which is considered as one of multi-factors may causes uprising to the concentration of parathyroid hormone in the blood stream. The out come conclusion of this study indicate that the level of PTH in the majority of boys were in the normal range as well as in the girls with a few exceptional are very high. The level of calcium in both groups were in the normal range. Concerning the consumption of foods were found that boys were always higher than girls and this is the normal case due to boys have more activation than girls

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