

Determination of oxidatives and anti oxidative markers levels after administration of oral Vitamin D in children with asthma

Abstract

Introduction

Today, many studies indicate an important role for vitamin D are among them could be its role in preventing cancer and cardiovascular diseases, asthma and allergic diseases as well as bacterial and viral infections. If the imbalance between oxidants and antioxidants in favor of oxidants force is an important factor in the pathogenesis of asthma. High levels of oxidative stress, which can lead to an outbreak of intravascular events series that are potentially Proinflammatory. Hence, in this study the level of vitamin D, anti-oxidant and oxidant status in asthmatic patients were evaluated.

Materials and Methods

This study is a randomized clinical trial. In this study, 60 children with asthma were selected randomly and double-blind. Patients were divided into two groups of 30 each drug and placebo, and 25-hydroxy vitamin D levels during the visit and Vitamin D, Glutathione and TOC, measured 10 days after single dose of vitamin D and placebo Prescription. After collecting the results, all results are compiled and analyzed with statistical analysis programs.

Results

In this study, 60 children with asthma Were divided into two drug and Placebo groups. In drug group 70% and placebo group 50% were male($P = 0.114$), mean age of the drug and pelacebo group is 4.93 and 4.45 years respectively($P = 0.570$). Vitamin D levels in entry time in drug and pelacebo group 18.70 and 29.61 respectively ($P = 0.293$) and vitamin D levels at the end of 10 days in the drug and placebo group is 54.80 and 30.73 respectively($P = 0.006$). Glutathione levels at the end of 10 days in the drug and placebo group is 44.16 and 29.48 respectively($P = 0.020$). Overall capacity level of oxidation (TOC) levels at the end of 10 days in the drug and placebo group is 15.29 and 15.06 respectively. Data analysis found that entry vitamin D levels in rural patients more than urban areas ($P = 0.004$) and in children with short sleeve dress more than long sleeves dress($P = 0.014$), but there was no communication with type of the home ($P = 0.324$), gender ($P = 0.055$) and CRP (more than one plus with negative) ($P = 0.427$) with vitamin D levels.

Conclusions

The results of this study showed that vitamin D could significantly increase the level of antioxidants capacity, hence it can be used as an appropriate drug in the patient treatment.

Keywords: Vitamin D, Asthma, glutathione