Introduction

Bronchial asthma is one of the most common pediatric chronic diseases that are responsible for significant morbidity, school absenteeism and mortality.

A recent comprehensive definition of asthma is that a chronic inflammatory disorder of the airway in which many cells play a role.

Insusceptible individual this inflammation causes symptoms which are usually associated with wide spread variable airway obstruction that is often reversible either spontaneously or with treatment, and causes increase in airway responsiveness to a variety of stimuli (***Geena,2004)***

Vitamin D is now known to be of physiological importance outside of bone health and calcium homeostasis, and there is mounting evidence that it plays a beneficial role in the prevention and or treatment of wide range of diseases. In this brief review the known effect of vitamin D on immune function are described in relation to respiratory health. Vitamin D appears capable of inhibiting of pulmonaryinflamatory responses, while enhancing innate defense mechanisms against respiratory pathogens. Population –based studies showing an association between circulating vitamin D and lung function provide strong justification for randomized controlled clinical trials of vitamin D supplementation in patients with respiratory diseases to assess both efficacy and optimal dosage. ***(Hughes and Norton, 2004)***

The effects of vitamin D on bone metabolism and calcium homeostasis have long been recognized. Emerging evidence has implicated vitamin I) as a critical regulator of immunity, playing a role in both the innate and cell mediated immune systems. Vitamin D deficiency has been found to be associated with several immune-mediated diseases, susceptibility to infection and cancer. Recently, there has been increasing interest in the possible link between vitamin D and asthma. Further elucidation of the role- of vitamin D in lung development and immune system function may hold profound implications for the prevention and treatment of asthma. **(Lnnge et al., 2009)**

Over the past decade, interest has grown in the role of vitamin I) in many nonskeletal medical conditions, including respiratory infection. Emerging evidence indicates that vitamin D-mediated innate immunity, particularly through enhanced expression of the human cathelicidin antimicrobial peptide (hCAP-18), is important in host defenses against respiratory tract pathogens. Observational studies suggest that vitamin D deficiency increase' risk of respiratory infections. This increased risk may contribute to incident wheezing illness in children and adults and cause asthma exacerbations. Although unproven, the increased risk of specific respiratory infections in susceptible hosts may contribute to some cases of incident asthma. Vitamin D also modulates regulatory T-cell function and interleukin-10 production, which may increase the therapeutic response to glucocorticoids in steroid-resistant asthma. Future laboratory, epidemiologic, and randomized interventional studies are needed to better understand vitamin D's effects on respiratory infection and asthma (**Gindc et al., 2009)**