



كلية الطب – جامعة الفيوم  
قسم الأطفال

## البحث الأول

### عنوان البحث :

Evaluation of Serum Vitamin D, LL37 and Interferon Gamma Levels in Saudi Children with Acute Lower Respiratory Tract Infection

مكان وتاريخ النشر :

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### **ABSTRACT**

**Background:** Since vitamin D deficiency is prevalent problem among Saudi population and hence its immunomodulatory role is increasingly investigated, this study tries to link between the immunomodulatory role of vitamin D and the risk of LRTI in children. **Objectives:** Evaluation of serum vitamin D, plasma LL37, and serum interferon  $\gamma$  levels in pediatric patients with acute lower respiratory tract infection. **Material and methods:** Fifty children with ALRTI admitted at King Khaled University Hospital, Riyadh/KSA were enrolled in the study. Seventy- three apparently healthy children were used as a control group. The results were compared with a matching group of apparently healthy children. We aimed to assess the correlations among serum vitamin D levels, inflammatory markers, and infection status. **Results:** We found that there was a high prevalence of vitamin D deficiency among Saudi children in general, regardless of the presence of ALRTI. No significant differences in serum vitamin D or plasma LL37 levels were observed between groups. In contrast, serum interferon- $\gamma$  was found to be significantly higher in children with ALRTI. Moreover, patients with serum vitamin D deficiency were found to have longer hospital stays than patients with normal serum vitamin D levels [P < 0.001]. **Conclusions:** These findings support the immunomodulatory role of vitamin D in the clinical course of ALRTI.