

## 27<sup>th</sup> International Conference on PEDIATRICS, NEONATOLOGY AND PEDIATRIC NURSING September 24-25, 2018 Tokyo, Japan

### The role of vitamin D deficiency in environmental health and childhood asthma

Marzieh Heidarzadeh Arani, Davood Ramezani Nezhad, Amir Hossein Movahedian and Mansour Sayyah  
Kashan University of Medical Sciences, Iran

Asthma is the most common chronic childhood disease and many of its risk factors have been identified. Although various studies on the link between vitamin D and asthma have been conducted, the role of vitamin D in the onset of asthma as an environmental health problem has not been well identified. This study aims to investigate the link between serum vitamin D level and asthma in children in Kashan, Iran. This case-control study was conducted on the asthmatic (n=99) and non-asthmatic (n=99) children. Asthma was monitored and examined using spirometry and by an allergy and asthma specialist. The patients were divided into three groups (mild, moderate, or severe) in terms of asthma severity. The age-matched children in the control group were selected from among non-asthmatic children. Serum vitamin D level was measured using Radioimmunoassay (RIA) technique. The mean serum vitamin D level of asthmatic children and the children in the control group was  $14.76 \pm 14.19$  ng/ml and  $30.47 \pm 9.7$  ng/ml, respectively ( $p < 0.001$ ). The mean serum vitamin D level of the children with mild, moderate, and severe asthma was  $17.6 \pm 14.2$  ng/ml,  $14.6 \pm 6.99$  ng/ml, and  $11.9 \pm 4.6$  ng/ml, respectively, which was significantly less than the control group ( $p < 0.001$ ). Serum vitamin D levels were not significantly different in terms of asthma severity. The results of this study showed that serum vitamin D level in asthmatic children is significantly less than in non-asthmatic children.

marz\_heidar@yahoo.com