Vitamin D levels in patients with anaphylaxis with or without asthma compared to the general Saudi population
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Background/Purpose: Vitamin D is known for its role in the bone metabolism but it also has immune-modulatory properties. Most of the evidence points towards a causal relationship between low vitamin D levels and the development of asthma and allergies but the results are not conclusive. We studied the vitamin D levels of patients who presented to our hospital with anaphylaxis with or without asthma and compared it to previously published vitamin D levels in Saudi population.

Methodology: All patients given new Adrenaline auto injector prescriptions for anaphylaxis between the periods of 1/1/2010 and 31/12/2011 were included in this study. Their medical records were also screened for diagnosis of asthma.

Results: A total of 238 patients were identified. Data about Vitamin D level was available for 121 of those patients. 84 out of these 121 patients were also being treated for asthma. There was no evidence of any difference in vitamin D levels between those with or without asthma presenting with anaphylaxis. Vitamin D levels compared in patients with anaphylaxis to the general population revealed that while there was no significant difference in terms of vitamin D deficiency, patients who presented with anaphylaxis had a higher chance of either having a normal or higher than normal vitamin D level.

Conclusions: When compared with the general population, patients with anaphylaxis have more chance to have normal vitamin D level. Vitamin D deficiency was not found to be a significant risk factor for anaphylaxis in our patients compared with the general Saudi population.