

MEETING ABSTRACT

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# Allergic diseases of the skin and drug allergies – 2028. Vitamin D insufficiency in dress syndrome

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## Background

Vitamin D deficiency (VDD) is widespread and on the increase. A few reports showed VDD has been implicated cutaneous symptoms such as rash and urticaria/angioedema and drug reaction with eosinophilia and systemic symptoms (DRESS). We evaluated the association of serum 25-hydroxyvitamin D<sub>3</sub>(25[OH]D<sub>3</sub>) and DRESS.

## Methods

36 patients diagnosed as DRESS were prospectively collected from September 2010 to April 2012. The diagnostic criteria in this study was used from our previous report.

## Results

Study patients consisted of 16 men (44.4%) and 13 women (55.6%). The most common causative drugs were antibiotics (17, 47.2%) and anticonvulsants (9, 25%), followed by non-steroidal anti-inflammatory drugs (5, 13.2%), antituberculosis drugs (4, 11.1%), undetermined agents (4, 8.9%), others (2, 5.6%) and undetermined (2, 5.6%). The mean serum 25[OH]D<sub>3</sub> level of the total subjects was 11.96 ± 10.27 ng/ml. Thirty-five patients (97.2%) had low vitamin D levels; 19 were severe VDD (<10 ng/mL, group I), and 16 vitamin D insufficiency (10-30 ng/mL, group II). The mean serum 25[OH]D<sub>3</sub> level of each group was 7.02 ± 1.65 ng/ml and 14.46 ± 3.56 ng/ml, respectively. There were no significant differences in sex, age, culprit drugs, organ involvements and the use of systemic steroids between two groups, except admission days (96.21 ± 89.66 vs. 37.56 ± 40.43, p=0.034). The level of serum 25(OH)D<sub>3</sub> was inversely correlated with admission days (r=-0.387, p=0.02).

## Conclusions

Vitamin D insufficiency was noted in patients with DRESS. Further studies are needed in large samples and to evaluate the vitamin D roles in drug hypersensitivity.

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