

## **Comparison of clinical and laboratory features of patients with and without allergic conditions in IgG4-related disease: a single-center experience in Japan**

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### **Objective:**

Although patients with IgG4-related disease (IgG4-RD) sometimes have accompanying allergic conditions, few data on the relationship between allergic conditions and IgG4-RD have been available. In the present study, we compared the clinical and laboratory features of IgG4-RD patients with and without allergic conditions.

### **Methods:**

We retrospectively examined the clinical and laboratory features of 45 patients with definite IgG4-RD, collected from all departments of Nagaoka Red Cross Hospital between January 2004 and March 2016, with reference to the presence of allergic conditions.

### **Results:**

Of the 45 patients, 18 (40%) had allergic conditions [allergic rhinitis (n=12) and bronchial asthma (n=10)] at the time of IgG4-RD diagnosis. In the allergic group, the proportion of females was significantly higher (61% vs. 30%,  $p=0.036$ ) and the age at diagnosis was significantly lower [mean 62 yr (42-85) vs. 72 yr (60-86),  $p=0.003$ ] in comparison with the non-allergic group. Kidney disease was evident more frequently in the non-allergic group, and there was no significant difference in the frequency of involvement of other organs. The ratio of the total number of affected organs in the upper body (head, neck and thoracic area) to that in the whole body was 79% in the allergic group and 56% in the non-allergic group. There was no significant inter-group difference in the absolute number of peripheral blood eosinophils, or the levels of serum IgG4 and IgE.

### **Conclusions:**

The present findings suggest that eosinophilia, and high serum levels of IgE and IgG4 are common features in IgG4-RD patients regardless of allergy, although there may be some clinical differences according to the concomitant allergic conditions that are present.