

## Utility of Serum IgG4 Levels in a Multi-Ethnic Population

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### Objectives:

To compare serum IgG4 levels in Asian and non-Asian patients with IgG4-related disease (IgG4-RD) for diagnostic purposes.

### Method:

This is single-center retrospective study of 36 patients with histologically confirmed IgG4-RD. Serum IgG4 levels, as well as clinical features, other laboratory findings, and disease trajectory were compared between Asian and non-Asian patients.

### Results:

The serum IgG4 at time of diagnosis was significantly higher in Asian ( $13.2 \pm 10.9$  g/L) than non-Asian patients ( $3.8 \pm 3.5$  g/L) ( $P = 0.017$ ). The sensitivity of elevated serum IgG4 was higher in Asians alone than for all patients (96% vs 88%) as was the negative predictive value of normal or low serum IgG4 (96% vs 77%). The mean serum level of IgG and polyclonal hypergammaglobulinemia were also significantly higher in Asians than non-Asians ( $P = 0.017$ , 0.001 respectively). Statistical analysis was done by student's t-test.

### Conclusions:

Asian patients with IgG4-RD have more exuberant serum IgG4, IgG and polyclonal hypergammaglobulinemia than non-Asians; the mechanism of this difference requires further study. The higher serum IgG4 level in Asians confers a greater sensitivity and negative predictive value in the diagnostic workup of Asians with suspected IgG4-RD.