

Usefulness of serum apoptosis inhibitor of macrophage (AIM) in patients with IgG4-related disease

Shiroh Tanoue¹, Shinichi Hashimoto¹, Shuji Kanmura¹, Akio Ido¹

1. Department of Digestive and Lifestyle Related Disease, Health Research Course, Human and Environmental Sciences, Kagoshima University Graduate School of Medical and Dental Sciences, Kagoshima, Japan

Objective:

IgG4-related disease (IgG4-RD) is characterized by infiltration of inflammatory cells as plasma cells and macrophages and fibrosis in tissues.

Methods:

We previously reported that apoptosis inhibitor of macrophage (AIM), which is secreted by macrophages, is related to the progression of hepatic fibrosis in chronic hepatitis C. In order to clarify the significance of serum AIM levels in patients with IgG4-RD autoimmune pancreatitis (AIP), we measured serum AIM levels in 22 healthy controls, 32 patients with IgG4-RD (AIP), and 36 patients with other pancreatic diseases (chronic pancreatitis (CP), intraductal papillary mucinous neoplasm (IPMN), pancreatic cancer (PC)).

Results:

The IgG4-RD (AIP) group had higher serum AIM levels than the healthy control and IPMN groups. Levels decreased significantly after steroid treatment. There was a correlation between AIM concentration and serum IgE level. A weak correlation was observed between serum AIM and IgG4 levels.

Conclusions:

It has been reported that macrophages are related to IgG4 class switching in B cell and fibrosis in IgG4-RD. Serum AIM level, secreted from macrophages, is considered a useful biomarker for evaluating pathology and therapeutic reactivity.