Effects of Steroid Therapy for IgG4-related Coronary Periarteritis

Haruhiko Higashi¹,², Shinji Inaba¹, Taichi Azuma³ and Takumi Sumimoto¹

Key words: IgG4-related coronary periarteritis, intravascular ultrasound, steroid therapy, IgG4-related disease, coronary artery disease

(DOI: 10.2169/internalmedicine.55.6484)

Picture 1.

Picture 2.

¹Department of Cardiology, Kitaishikai Hospital, Japan, ²Department of Cardiology, Pulmonology, Hypertension and Nephrology, Ehime University Graduate School of Medicine, Japan and ³Department of Hematology, Clinical Immunology and Infectious Diseases, Ehime University Graduate School of Medicine, Japan

Received for publication August 29, 2015; Accepted for publication October 25, 2015
Correspondence to Dr. Haruhiko Higashi, hingassy@yahoo.com
A 67-year-old man with a periaortic mass (Picture 1A, arrows) presented to our hospital because of acute chest pain. Coronary angiography revealed severe stenosis in the distal right coronary artery. Intravascular ultrasound (IVUS) showed large low-echoic lesions (Picture 2A-C, arrowheads) on the outer side of the media, corresponding to plaque rupture (Picture 2A, asterisk). These IVUS findings differed from those of coronary dissection. Balloon angioplasty was successfully performed. His serum IgG4 level was 197 mg/dL (reference range, 4.8-105 mg/dL). Computed tomography (Picture 1A) and 18F-fluorodeoxyglucose positron emission tomography (Picture 1B) findings were consistent with retroperitoneal fibrosis, which is an IgG4-related disease. After 11 months of steroid therapy, the patient’s serum IgG4 level decreased to 48 mg/dL and a marked reduction in retroperitoneal fibrosis was observed on computed tomography (Picture 1C, arrows). The low-echoic lesions, considered to indicate IgG4-related periarteritis, were also markedly decreased (Picture 2A'-C', corresponding to 2A-C). This case is the first report of an IVUS-confirmed morphological change after steroid therapy in a patient with IgG4-related periarteritis.

The authors state that they have no Conflict of Interest (COI).