Possible Aggravation and Recovery of Slowly Progressive Type 1 Diabetes by Onset and Resolution of Oral and Esophageal Candidiasis

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To the Editor We are writing regarding the case of oral and esophageal candidiasis that we previously reported online on April 2, 2007 (1); in that report we described the patient as having type 2 diabetes. However, after two years of follow-up, her diabetes proved to be type 1.

The case in question is a 77-year-old woman who was admitted to our department because of frequent hypo- and hyperglycemic episodes with three times daily injection of premixed type insulin. Her HbA1c level was 6.9% at that time with a total insulin dosage of 23 units (0.5 units / body weight kg) per day. Her laboratory data on admission were as follows: low fasting serum C-peptide level; 0.1 ng/ml, reduced urinary excretion of C-peptide; 0.6-1.0 μg/day, no C-peptide response to an intravenous glucagon injection (1 mg); 0.1 ng/ml before and after injection up to 30 minutes, a positive serum test for insulinoma-associated antigen-2 antibody (IA-2); 2.1 U/ml (normal range: less than 0.4 U/ml) with negative tests for glutamic acid decarboxylase (GAD) antibody and insulin autoantibody (IAA). Genotypic analysis revealed that the patient was homozygous for the HLA-DRB1*0901-DQB1*0303 haplotype that is one of the major susceptible haplotypes in Japanese for type 1A diabetes (2).

Initially, we diagnosed her diabetes as type 2 because of the relatively reserved C-peptide level (urinary excretion of 33.1 μg/day) and the negative GAD antibody during her first admission period and the reduced daily insulin dosage [12 units (0.26 units / body weight kg) per day] 9 months after her first discharge (1).

Thus, considering all the results of the second admission, this case might have been a case of slowly progressive type 1 diabetes (3) with temporally aggravated hyperglycemia by possibly reduced insulin sensitivity caused by the candidiasis and the limited insulin secretory capacity due to diabetes, which recovered synchronously with the resolution of candidiasis.

References


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