

Appendix S1

MATERIALS AND METHODS

Patients

The study population comprised 5 fibrillar-type patients with DH (mean age 67.4 years; age range 41–81 years) in the active stage of the disease who had not received any treatments. All 5 patients showed the typical clinical and histological findings of fibrillar-type DH, such as the fibrillar IgA deposition in the papillary dermis and the absence of GSE. Three of the patients with DH also lacked the *HLA-DQ2/DQ8* haplotype. The patient characteristics are summarized in Table I. The detailed clinical information for patients 1 and 2 are described in our previous paper (5). We also established an age- and sex-matched control group consisting of 5 healthy individuals (mean age 70.02 years; age range 54–82 years). The study protocol complied with all of the principles of the Declaration of Helsinki. This study was approved by the medical ethics committees of the University of Toyama (approval number: 27–45).

Enzyme-linked immunosorbent assay

The serum levels of anti-IgA antibodies for eTG and tTG were examined by anti-heTG IgA enzyme-linked immunoassay (ELISA) and anti-htTG IgA ELISA, respectively (both from Immundiagnostik Bensheim, Germany). The serum levels of IL-12 (≤ 5 pg/ml), IFN- γ (≤ 8 pg/ml), IL-4 (≤ 10 pg/ml), IL-5 (0.29 pg/ml), IL-13 (13.2 pg/ml), IL-8 (3.5 pg/ml) and eotaxin (≤ 5 pg/ml) were also measured by an ELISA (R&D Systems, Inc., Minneapolis, MN, USA). ELISAs were performed in accordance with the manufacturer's instructions.

Statistical analysis

All of the values were expressed as the mean \pm standard deviation (SD). Welch's *t*-test was used to analyse differences between 2 independent samples. *p*-values < 0.05 were considered to indicate statistical significance.