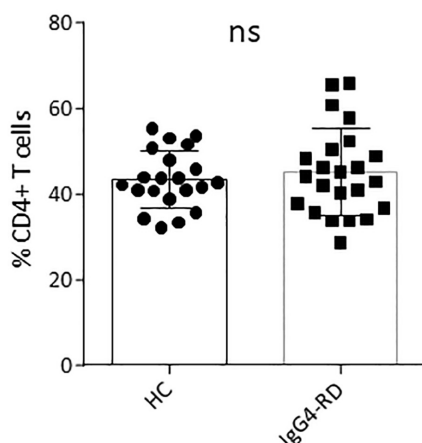


Supplementary Table S1. Characteristics of 23 patients with active, untreated IgG4-RD.

Demographic features	
Age (years) (median and the range: minimum and maximum)	64 (36-86)
Sex, female (n, %)	12 (52)
Past atopic history (n, %)	12 (52)
Organ involvements (n, %)	
Lacrimal glands and orbits	18 (78)
Salivary glands	14 (61)
Lymph nodes	13 (57)
Lungs	8 (35)
Pancreas	4 (17)
Kidneys	3 (13)
Aorta	2 (9)
Retroperitoneum	2 (9)
Skin	2 (9)
Paravertebral mass	2 (9)
Clinical parameters (median and the range: minimum and maximum)	
Serum IgG (mg/dL)	1734 (934-3593)
Serum IgG4 (mg/dL)	434 (65-2178)
Serum IgE (IU/mL)	310 (5-3300)
Serum soluble interleukin-2 receptor (U/mL)	375 (202-1963)
Blood eosinophil count (cells/ μ L)	252 (44-1568)
Number of affected organs	3 (1-6)
IgG4-RD responder index	12 (6-21)

Supplementary Table S2. Antibodies used for multi-color flow cytometry.

Antibody	Conjugate	Clone	Supplier
CD3	FITC	UCHT1	BD Biosciences
	BV605	SK7	BD Biosciences
CD4	BV786	SK3	BD Biosciences
	PerCP-Cy5.5	OKT4	BioLegend
CD45RA	BV711	HI100	BD Biosciences
	PE-Cy7	HI100	BD Biosciences
CXCR5	BV421	RF8B2	BD Biosciences
CXCR3	PE	1C6	BD Biosciences
	BV510	1C6	BD Biosciences
CCR6	PE-CF594	G034E3	BioLegend
CCR4	BV605	L291H4	BioLegend
ICOS	FITC	ISA-3	eBioscience
GATA-3	BV421	L50-823	BD Biosciences
BCL-6	AF647	IG191E/A8	BioLegend
FOXP3	PE	236A/E7	BD Biosciences

**Supplementary Fig. S1.** Comparison of the proportion of CD4+T cells between IgG4-RD and healthy controls. Mann-Whitney U-test.