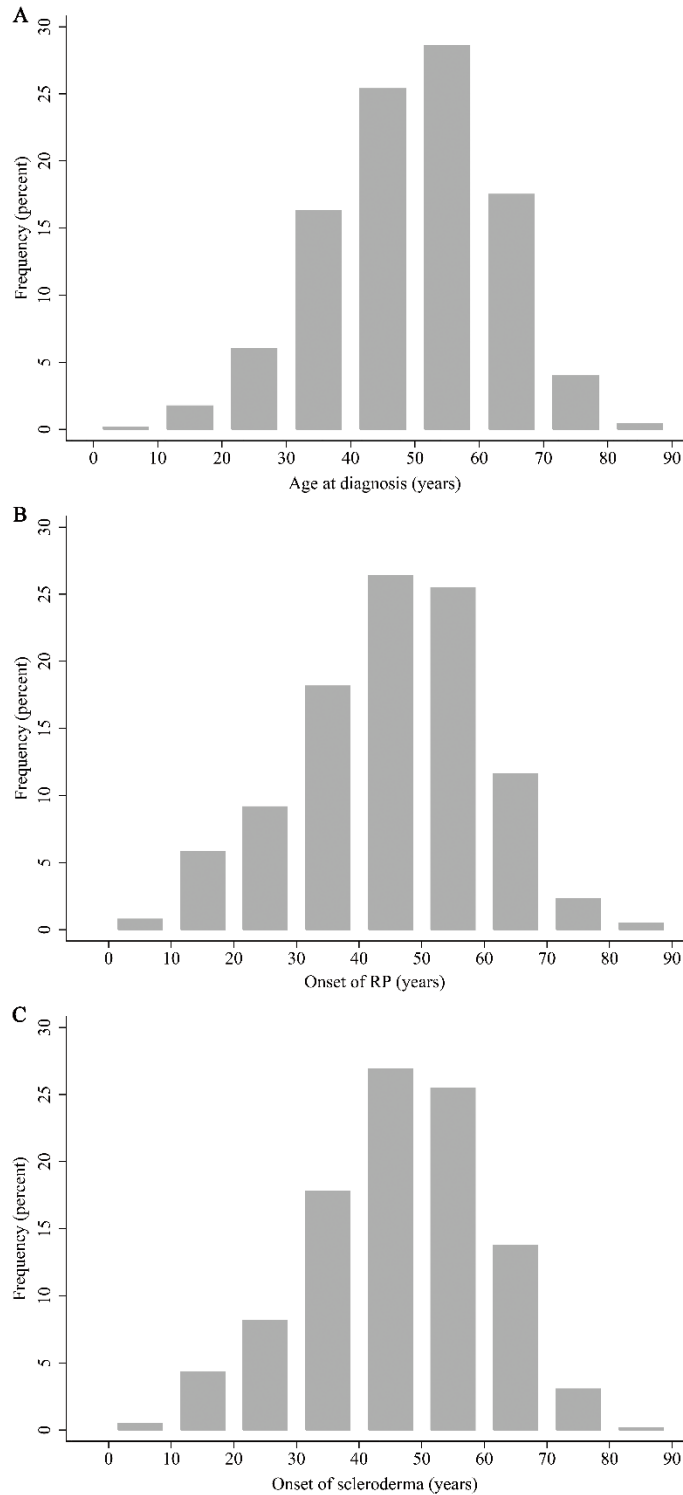


ONLINE SUPPLEMENTARY DATA

Supplementary Figure 1. Frequency of age at diagnosis (A), onset age of Raynaud phenomenon (B) and onset age of scleroderma (C) in patients with systemic sclerosis in each age decade.



Supplementary Table 1. Type of malignancies in Korean patients with systemic sclerosis.

Type	SSc patients with malignancy (n=46)
Lung cancer, n (%)	11 (23.9%)
Stomach cancer, n (%)	6 (13%)
Breast cancer, n (%)	6 (13%)
Thyroid cancer, n (%)	5 (10.9%)
Cervical cancer, n (%)	4 (8.7%)
Lymphoma, n (%)	3 (6.5%)
Colon cancer, n (%)	2 (4.3%)
Tongue cancer, n (%)	2 (4.3%)
Duodenal cancer, n (%)	1 (2.2%)
Malignancy of unknown origin, n (%)	1 (2.2%)
Prostatic cancer, n (%)	1 (2.2%)
Rectal cancer, n (%)	1 (2.2%)
Renal cell cancer, n (%)	1 (2.2%)
Lung and thyroid cancer, n (%)	1 (2.2%)
Lymphoma and colon cancer, n (%)	1 (2.2%)

Supplementary Table 2. Differences in disease presentation according to the presence of anti-Scl70 antibody.

Characteristics	positive (n = 302)	negative (n = 408)	p-value
Female, n (%)	266 (88.1%)	348 (85.3%)	0.318
dcSSc, n (%)	152 (50.3%)	94 (23.0%)	<0.001
BMI, kg/m ² , mean ± SD	21.5 ± 3.7	22.9 ± 18.0	0.255
Age at diagnosis, years, mean ± SD	45.3 ± 13.9	51.5 ± 12.2	<0.001
Onset age of RP, years, mean ± SD	39.8 ± 15	48 ± 13.6	<0.001
Onset age of scleroderma, years, mean ± SD	41.5 ± 14.4	49.2 ± 13.4	<0.001
Observation period, years, mean ± SD	6.4 ± 5.7	6.2 ± 5.5	0.729
Residence in urban area, n (%)	240 (79.7%)	308 (76.0%)	0.273
mRSS, mean ± SD	10.2 ± 7.7	6.6 ± 5.9	<0.001
GERD, n (%)	105 (35.1%)	119 (29.5%)	0.12
ILD, n (%)	223 (74.1%)	158 (38.9%)	<0.01
Cardiovascular involvement, n (%)	34 (11.9%)	39 (10.1%)	0.531
PAH, n (%)	38 (14.8%)	53 (14.7%)	0.982
Isolated PAH, n (%)	1 (0.3%)	11 (2.7%)	0.017
Renal crisis, n (%)	10 (3.3%)	7 (1.7%)	0.216
Cancer, n (%)	15 (5.0%)	29 (7.1%)	0.272

Death, n (%)	35 (11.6%)	19 (4.7%)	0.001
Pulmonary function test			
FVC (% predicted), mean \pm SD	72.8 \pm 17.9	83.0 \pm 20.1	<0.001
FEV1 (% predicted), mean \pm SD	77.3 \pm 18.7	87.7 \pm 21.4	<0.001
FEV1/FVC (% predicted), mean \pm SD	107.5 \pm 14.9	106.5 \pm 12.6	0.371
DLco (% predicted), mean \pm SD	61.7 \pm 20.6	68.6 \pm 22.4	<0.001
Systolic PAP, mmHg mean \pm SD	31.4 \pm 16.2	32.8 \pm 16.8	0.363

dcSSc: diffuse cutaneous systemic sclerosis; body mass index; RP: Raynaud's phenomenon;

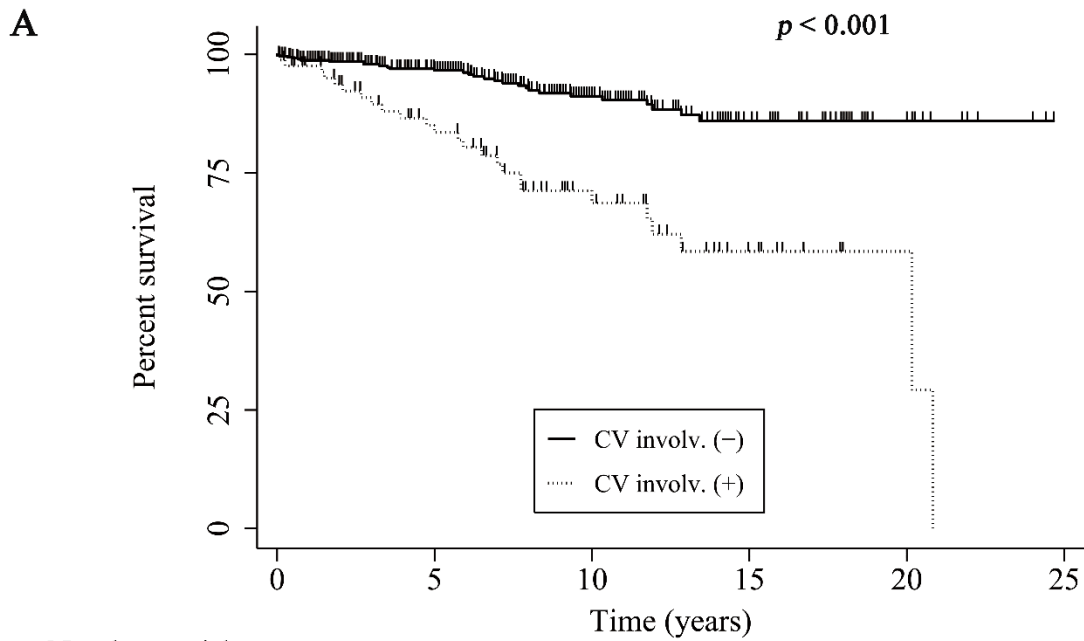
mRSS: modified Rodnan skin score; GERD: gastroesophageal reflux disease; ILD: Interstitial lung

disease; PAH: Pulmonary arterial hypertension; FVC: forced vital capacity; FEV1: forced

expiratory volume in 1 second; DLco: diffusing capacity for carbon monoxide; PAP: pulmonary

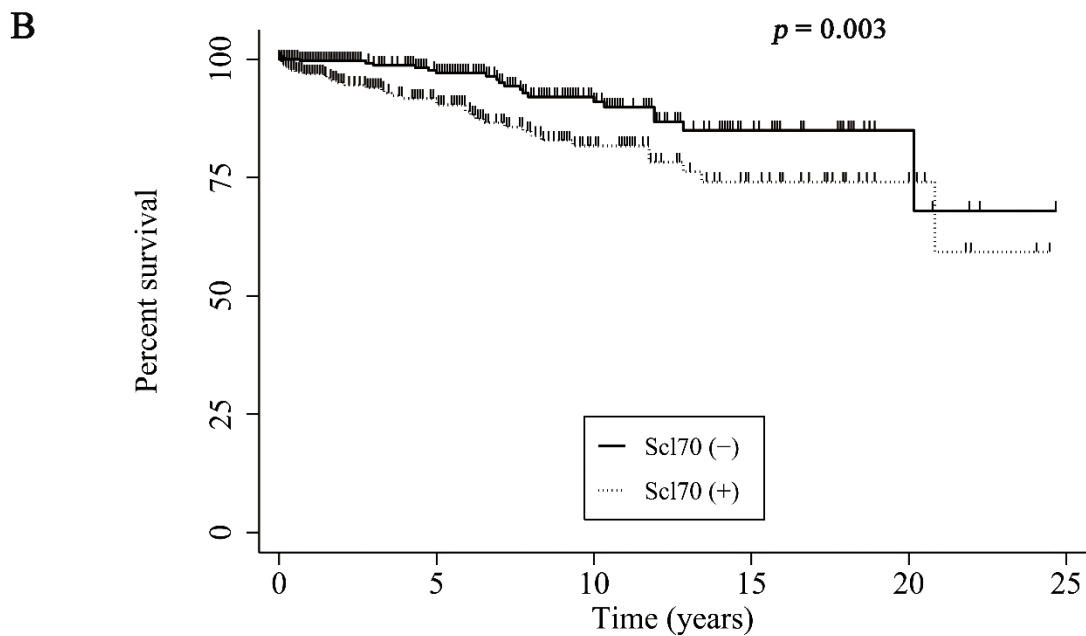
arterial pressure.

Supplementary Figure 2. Comparisons of survival curve in patients with systemic sclerosis according to the presence of cardiovascular involvement (A) and ant-Scl70 antibody (B).



Number at risk

CV invol. (-)	529	267	124	46	14	0
CV invol. (+)	84	56	27	10	2	0



Number at risk

Scl70 (-)	345	177	86	26	5	0
Scl70 (+)	273	139	62	26	11	0