Background and objectives Systemic sclerosis (SSc) is an autoimmune disease divided in two subsets, diffuse cutaneous and limited cutaneous SSc (dcSSc and lcSSc), affecting mostly women. We, and others showed that patients with dcSSc are associated with particular HLA-DRB1*11 and *15 alleles, having in common an amino acid sequence (^{67}FLEDR^{71}). In parallel, cells and/or DNA, originating from bi-directional traffic of cells during pregnancy, referred as maternal or fetal microchimerism (Mc) persist for decades in healthy women and could trigger to SSc under particular circumstances.
The aim of our study was to examine whether patients with dcSSc have more often a mother carrying the HLA susceptibility alleles and whether Mc may be a source of FLEDR among patients with dcSSc, as previously described by us and others in patients with RA for RA-associated HLA alleles.[1 2]
Methods Thirty five patients with dcSSc and 54 healthy women were HLA-DRB1 typed by SSOP methods as well as their mothers (N=89). Among the 35 patients, 13 did not carry the SSc-associated HLA-DRB1*15 alleles and were tested for DRB1*15 Mc by HLA specific quantitative PCR assays in their peripheral blood mononuclear cells and compared to 32 healthy controls who also did not carry HLA-DRB1*15 alleles.
Results Initial results, show that women with dcSSc had a tendency to have more often a mother carrying HLA DRB1*15 alleles (non-inherited maternal antigen, NIMA), than healthy controls (22.9% vs 11.1%, p=0.07). However HLA-DRB1*15 Mc levels and frequencies were not different between patients and controls with respectively 4/13 (30.7%) and 9/32 (28.1%) women positive for Mc. HLA-DRB1*11 NIMAs were at similar frequencies for patients and controls and not yet tested for maternal Mc.
Conclusions Contrary to our recent publication in RA, patients with SSc do not acquire more often than controls HLA-DRB1*15 susceptibility alleles through Mc. Several mechanisms may explain this negative result as we recently showed that immunosuppressive treatments could decrease Mc levels. Moreover the marginal increase of mothers carrying HLA-DRB1 susceptibility alleles (NIMA) is intriguing and merits further analyses.

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A80 COULD MICROCHIMERISM BE A SOURCE OF DISEASE-ASSOCIATED HLA ALLELES IN PATIENTS WITH SCLERODERMA?

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