However, whether the nailfold capillaroscopy pattern is distinct in SSc patients with malignancy remained unknown.

Objectives: The aim of this study was to investigate the incidence rate of malignancy in SSc patients. Nailfold capillaroscopy morphology patterns in SSc patients with cancer were also compared to those without cancer.

Methods: During 2004 to 2014, consecutive 310 SSc patients who visited outpatient clinics at Taichung Veterans General Hospital, Taiwan were enrolled. Nailfold capillaroscopy was performed at a magnification of 200x. Abnormal morphology description were analysed and categorised by the scoring system proposed by Dr. Cutolo². SSc with malignancy was defined if the subject had a cancer diagnosis during the follow-up period.

Results: Among 310 SSc patients, 28 (10.9%, 13 males, 25 females) patients had cancer. The mean age of SSc with malignancy is 62±10.9 years. Sixty-four percent SSc patients with cancer is diffuse type, but only 42% of them were tested positive for anti-Scl-70 antibodies. The most common cancer were genitourinary tract and gastrointestinal tract, accounting for almost two-thirds patients. Cancer and SSc were frequently diagnosed at the same year. In SSc patients with cancer, 19 patients received nailfold capillary microscope exams when SSc was diagnosed. The assessment of nailfold capillaroscopy morphology patterns in SSc patients with cancer demonstrated neither enlarged loop, giant loop, microhemorrhage nor angiogenesis. However, prominent avascular areas could be observed universally in SSc patients with malignancy.

Conclusions: Rheumatologists should be aware of malignancy in SSc patients, especially those with diffuse type and within the 1st year of symptoms onset. SSc patients with malignancy tend to present atypical capillaroscopic pattern of prominent avascular area without loop dilatation, microhemorrhage and angiogenesis.

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AB0818 THE COMPARATIVE STUDY OF SYSTEMIC SCLEROSIS AND SYSTEMIC LUPUS ERYTHEMATOSUS-ASSOCIATED PULMONARY ARTERIAL HYPERTENSION

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Background: Systemic Sclerosis(SSc) is the main cause of Connective Tissue Disease-associated pulmonary arterial hypertension (CTD-PAH) in western countries, while Systemic Lupus Erythematosus(SLE) is the first cause in Asian.

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Objectives: This study aimed to identify the clinical difference between SSc-PAH and SLE-PAH.

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Methods: SSc and SLE patients with pulmonary arterial hypertension who visited Guangdong General Hospital in China from 2009 to 2017 were recruited. PAH was diagnosed by transthoracic echocardiography or right heart catheterization and clinical data of patients was collected. Comparative study between SSc-PAH and SLE-PAH was conducted to identify the difference.

SSc and SLE patients with pulmonary arterial hypertension who visited Guangdong General Hospital in China from 2009 to 2017 were recruited. PAH was diagnosed by transthoracic echocardiography or right heart catheterization and clinical data of patients was collected. Comparative study between SSc-PAH and SLE-PAH was conducted to identify the difference.

Results: Twenty-nine SSc-PAH and 55 SLE-PAH patients were enrolled. The baseline characteristics of two groups was shown in table 1. In comparative study: the gender($p=0.018$), the age of PAH diagnosis($p=0.001$), Raynaud's phenomenon($p<0.001$), WHO function state($p=0.019$), PASP ($p=0.013$), the diameter of RA($p=0.045$) and RV($p=0.029$) showed significant difference between SSc and SLE-PAH.

Abstract AB0818 – Table 1. Baseline Characteristics of SSc-PAH and SLE-PAH Patients

	SSc-PAH(29)	SLE-PAH(55)	<i>p</i>
Female	23(79.3%)	53(96.4%)	0.018
Age	46.0±14.3	34.2±10.3	0.001
Course ^a (year)	3.0[0.5, 6.4]	0.8[0.0, 9.5]	0.833
Raynaud's phenomenon	28(96.6%)	22(40.0%)	<0.001
Anti-U1RNP antibody	11(37.9%)	27(49.1%)	0.329
WHO Fc(III/IV)	18(62.1%)	45(84.9%)	0.019
NT-proBNP(pg/ml)	2051[489, 5227]	1392[113, 3632]	0.176
TTE			
PASP(mmHg)	67.1±25.9	81.1±24.0	0.013
Diameter of RA(mm)	48.9±7.7	53.0±8.5	0.045
Diameter of RV(mm)	52.9±6.6	55.9±6.7	0.029
LVEF(%)	63.0±10.5	67.4±7.6	0.081
Pericardial effusion	11(37.9%)	22(41.5)	0.752
RHC^b			
SPAP(mmHg)	88.3±17.5	75.9±22.2	0.109
DPAP(mmHg)	28.0±9.2	29.5±11.6	0.764
mPAP(mmHg)	48.3±11.7	47.5±14.8	0.773
PVR(WU)	13.1±7.2	11.4±6.1	0.363
CI(L·min ⁻¹ ·m ⁻²)	2.9±0.8	3.2±1.1	0.687

TTE: transthoracic echocardiography; PASP: pulmonary arterial systolic pressure; RA: right atrium; RV: right ventricle; LVEF: left ventricle ejection fraction; RHC: right heart catheterization; PAP: pulmonary arterial pressure; PVR: pulmonary vascular resistance; CI: cardiac index.

^a the time between the onset of CTD and PAH;

^b 6 SSc patients and all SLE patients received RHC;

n=number at risk, SpA=Spondyloarthritis; PsA=Psoriatic arthritis

Conclusions: The SSc-PAH patients tend to be older, have more angiopathic characteristics and more silent clinical course than SLE patients, which might bring some insight into the different pathophysiological process between SSc and SLE-PAH.

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AB0819 TFH CELLS CONTRIBUTE TO ABNORMAL B CELL PROFILES IN DERMATOMYOSITIS

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Background: CD4 +CXCR5+PD-1+T follicular helper (Tfh) cells assist B cells in their proliferation, differentiation and antibody class switch.⁽¹⁾ Several studies indicate that Tfh cells play important roles in autoimmune diseases such as SLE, RA and pSS, which are characterised by the production of multiple antibodies.⁽²⁻⁴⁾ The frequency of Tfh cells in the peripheral blood from patients with dermatomyositis(DM) and whether they participate in the development of DM remain to be elucidated.

Objectives: To investigate the frequencies of Tfh cells and B cell profiles in DM patients. To further determine the association of Tfh cells and B cells in DM patients and clarify the possible mechanism.

Methods: Peripheral blood mononuclear cells (PBMCs) were isolated from DM patients and age, gender-matched healthy controls (HCs), respectively. The frequency of Tfh (CD4 +CXCR5+PD-1+) cells, total B (CD19+) cells naïve B (CD19 +CD27-) cells, memory B(CD19 +CD27+) cells and plasmablasts (CD19 +CD38+) were examined by flow cytometry. The serum levels of IL-21, IgG, IgM, IgE and IgA were tested by enzyme linked immunosorbent assay (ELISA).