Conclusion: APS in southern Chinese is relatively uncommon and most cases were associated with SLE. In contrast with the Caucasians, venous thrombosis related to APS is less frequent than arterial thrombosis in Chinese patients. With long-term anticoagulation treatment, the outcome is satisfactory with relatively low rates of recurrence and mortality. Expansion of the sample size to study factors associated with recurrence and mortality by involving more hospitals is in progress.

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POS0774 INFLUENZA INFECTION AS A TRIGGER FOR SYSTEMIC LUPUS ERYTHEMATOSUS FLARES RESULTING IN HOSPITALIZATION

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Background: Infections have been associated with a higher risk of systemic lupus erythematosus (SLE) flares, but the impact of influenza infection on SLE flares has not been evaluated.
Objectives: We evaluated the association between influenza infection and SLE flares resulting in hospitalization.
Methods: SLE flares resulting in hospitalization and influenza cases were ascertained from the Korean national healthcare insurance database (2014-2018). We used a self-controlled case series design. We defined the risk interval as the first 7 days after the influenza index date and the control interval was defined as all other times during the observation period of each year. We estimated the incidence rates of SLE flares resulting in hospitalization during the risk interval and control interval and compared them using a Poisson regression model.
Results: We identified 1,624 influenza infections among the 1,455 patients with SLE. Among those, there were 98 flares in 79 patients with SLE. The incidence ratio (IR) for flares during the risk interval as compared with the control interval was 25.75 (95% confidence interval 17.63 – 37.59). This significantly increased the IRs for flares during the risk interval in both women (IR 27.65) and men (IR 15.30), all age groups (IR 17.00 – 37.84), with and without immunosuppressive agent (IR 24.29 and 28.45, respectively), and with and without prior respiratory diseases (IR 21.86 and 26.82, respectively).
Conclusion: We found significant association between influenza infection and SLE flares resulting in hospitalization. Influenza infection has to be considered as a risk factor for flares in all SLE patients regardless of age, sex, medications, and comorbidities.
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Table 1. Incidence ratios for SLE flares resulting in hospitalization after influenza infection

Risk interval	Incidence ratio	95% CI
During risk interval for 7 days / control interval	25.75	17.63 – 37.59
Days 1-3 / control interval	21.81	14.71 – 32.35
Days 4-7 / control interval	7.56	3.69 – 15.47

SLE, systemic lupus erythematosus; CI, confidence interval

Disclosure of Interests: None declared
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POS0775 APLS-ASSOCIATED RETINAL VASCULOPATHY AS A PRESENTATION OF THROMBOTIC MICROANGIOPATHY

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Background: Persistent antiphospholipid antibodies (aPL) positivity was a recognized risk factor for thrombotic events, obstetric morbidity and a variety of manifestations beyond thrombosis. The presence of some non-criteria manifestations including thrombocytopenia, hemolytic anemia, and APS nephropathy should prompt consideration for thrombotic microangiopathy (TMA).[1] Patients with APS can also present with a variety of ocular and neuro-ophthalmic manifestations, such as retinal artery/vein occlusion, retinal arteritis, optic neuritis and ischemic optic neuropathy, with underlying mechanisms remained elusive. Retinal vasculopathy including retinal artery occlusion (RAO) or retinal vein occlusion (RVO) was recently found occurred more frequently in APS patients with thrombocytopenia[2], suggested other possible mechanisms besides thromboembolism.
Objectives: To explore risk factors and possible mechanisms of retinal vasculopathy among APS patients.
Methods: In this single-center case-control study among APS patients, we evaluated patients who fulfilled 2006 Sapporo APS Classification Criteria[3] with or without retinal vasculopathy during 2018-2020 at Peking Union Medical College Hospital. Demographic data, aPL-related manifestations, cardiovascular risk factors and antibodies profile were compared and a logistical regression model was built. Hierarchical cluster analysis with the Euclidean distance and the Ward method was applied to identify clusters of variables.
Results: A total of 310 APS patients (67.4% female, mean age 38.1 years) were included, of whom 18 patients were diagnosed with retinal vasculopathy (9 with RVO and 9 with RAO). No significant differences was found among most demographic characteristics, clinical manifestations, or antibody profile. However, APS-related heart valve disease (OR 13.66, 95% confidence interval [CI] 4.55-40.98), APS nephropathy (OR 12.77, 95% CI 4.04-40.35), thrombocytopenia (OR 2.63, 95% CI 1.01-6.89) and high serum IgM (OR 3.67, 95% CI 1.30-10.40) were predictive of retinal vasculopathy (Figure 1 A). APS-related heart valve disease and nephropathy were also found statistical significant in multivariate logistical regression (Figure 1 B). They and other non-criteria manfestations were aggregated with retinal vasculopathy from cluster analysis of variables (Figure 1 C).
Conclusion: Patients with APS-related heart valve disease and nephropathy suffered a higher risk of retinal vasculopathy including RAO and RVO. The underlying mechanisms of aPLs-associated retinal vasculopathy may involve TMA, leading to a poor prognosis and therapeutic changes.
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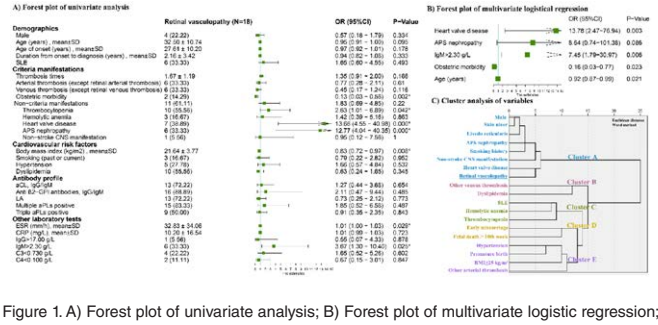

Figure 1. A) Forest plot of univariate analysis; B) Forest plot of multivariate logistic regression; C) Cluster analysis of variables.

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POS0776 CORRELATION OF PERIPHERAL CD4+GRANZB+CTLS WITH DISEASE SEVERITY IN PATIENTS WITH PRIMARY SJÖGREN'S SYNDROME

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Background: Sjögren's syndrome (SS) is a chronic autoimmune disorder. The major histopathologic lesion of it is a focal lymphocytic infiltrate around ductal and acinar epithelial cells, which include a majority of CD4+T. Several studies have shown that the epithelial cells in SS present diverse phenomena, such as MHC class II overexpression. CD4+T cells with cytotoxic activity (CD4 CTL) have been detected in various immune responses. They are characterized by their ability to secrete perforin and granzyme B to kill the target cells in an MHC class II-restricted fashion.
Objectives: So this study was to investigate the correlation of peripheral CD4+GranzB+CTLs with disease severity and organ involvement in patients with primary Sjögren's syndrome.
Methods: We recruited 116 pSS patients and 46 healthy controls using flow cytometry to examine proportion of CD4+GranzB+CTLs in their peripheral blood, and immunofluorescence to test the expression of CD4+GranzB+CTLs in labial gland. The correlations of CD4+GranzB+CTLs and the relevant clinical data were analyzed.

Results: We analyzed the percentage of CD4+GranzB+cytotoxic T cells in peripheral blood mononuclear cells (PBMCs) by flow cytometry. Frequency of peripheral CD4+GranzB+CTLs were measured in 116 patients with pSS and 46 healthy controls matched for age and sex. The percentage of CD4+GranzB+CTLs were significantly up-regulated in pSS patients than healthy controls (7.1%±4.9% vs 3.1%±1.9%, p <0.0001) and positive correlation with ESSDAI in pSS patients(r = 0.6332, p<0.001). The percentage of CD4+GranzB+CTLs were markedly higher in pSS patients with extraglandular manifestations. Moreover, CD4+GranzB+CTLs were observed in the lymphocytic foci and periductal areas of the LSGs and were elevated with increased foci index (FI). After excluding the other risk factors associated with pSS, CD4+GranzB+CTLs were still related to ESSDIA and extraglandular manifestations independently(p<0.05). ROC curve analysis indicated that the area under the curve (AUC) of CD4+GranzB+CTLs was 0.796 to predict the activity of pSS, and 0.851 to presume extraglandular manifestations. The best diagnostic cut-off point was 4.865 for pSS patients.
Conclusion: In this study, We provide new evidence indicating involvement of CD4+GranzB+CTLs over activation in the disease pathophysiology of pSS, which may serve as a new biomarker to evaluate the activity and severity of pSS.
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Table 1. Multivariate analysis of CD4+GranzB+CTLs influenced by pSS-related factors

	regression coefficient	standard error	t-statistics	*p* value	95%CI
CD8+GranzB+CTLs(%)	0.144	0.033	4.334	6.9E-5	0.077, 0.211
ESSDAI	0.256	0.122	2.095	0.041	0.011, 0.502
extraglandular manifestations	2.612	1.268	2.059	0.045	0.065, 5.158

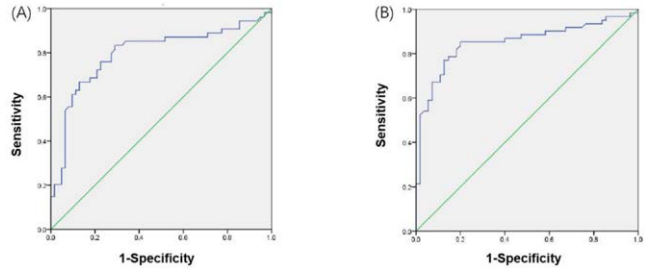

Figure 1. Receiver operating characteristic (ROC) curve of the frequency of CD4+GranzB+CTLs to predict ESSDAI and extraglandular manifestations response

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POS0777

ANTIPHOSPHOLIPID RELATED LARGE VESSEL LESIONS: NOT ONLY THROMBOSIS

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Background: Antiphospholipid syndrome (APS) is demonstrated as recurrent venous/arterial thromboses or obstetric morbidities with persistent antiphospholipid antibodies(aPLs). Recently, several cases reported that non-thrombotic lesions of large vessels may exist in APS, while less report described the characteristics of these patients.
Objectives: The study investigated patients with chronic large vessel lesions (stenosis or occlusion) (LVL) in APS, to detect the features of non-thrombotic arterial vasculopathy in APS (VAPS) by comparing with thrombotic APS (TAPS).
Methods: This is a single-center study involved the APS database from Peking Union Medical College Hospital (PUMCH) from 2013 to 2020. The study analyzed demography and laboratory index of 18 patients with LVL by comparing with 216 patients with thrombotic APS. Patients with LVL presented no specific vasculitis or in situ thrombosis at the lesion.
Results: Radiographic analysis in patients with LVL showed widespread thickening/enhancement of vessel wall or multiple segments stenoses, without intraluminal thrombus or atherosclerosis. In comparing with 216 patients with TAPS, the 18 patients with LVL complicated no other autoimmune diseases, had more cardiovascular risks (72.22% vs. 30.09%, $P < 0.01$), lower inflammatory index such as erythrocyte sedimentation rate (ESR) (6 vs. 11, p<0.05), increased cerebrovascular symptoms which maybe related to cerebral/carotid vessel occlusions (55.56%vs. 25.93%, p=0.01). Population characteristics, complications and antibody profiles in VAPS are similar to TAPS.
Conclusion: Large vessel lesions in APS could present non-thrombotic and non-inflammatory manifestations which is different from TAPS.

Table 1. Demographic characteristics

	TAPS(n=216)	VAPS(n=18)	P-value
Age (years), Mean±SD	39.36±13.69	40.06±13.86	.290
Male, n (%)	88(40.74)	9(50.00)	.300
SLE, n (%)	53(24.54)	0	***.008***
Other autoimmune diseases, n (%)	4(1.85)	0	.724
B.M.I. (kg/m2), Mean±SD	24.10±4.12	23.93±3.31	.469
Cardiovascular risk factors, n (%)	65(30.09)	13(72.22)	***.001***
Non-criteria manifestations, n (%)	109(50.46)	7(38.89)	.243
Triple positive antibodies, n (%)	124(57.4)	13(72.22)	.165
Double positive antibodies, n (%)	46(21.30)	4(22.22)	.563
Single positive antibody, n (%)	45(20.83)	1(5.56)	.096
Arterial thrombosis, n(%)	100(46.30)	16(88.89)	***.000***
Stroke	56(25.93)	10(55.56)	***.010***
Venous thrombosis, n(%)	152(70.37)	8(44.44)	***.025***
ESR (mm/h), Median (Quartile)	11(5.00,29.00)	6(2.75,14.00)	***.035***
CRP (mg/L), Median (Quartile)	1.52(0.59,4.44)	1.28(0.26,1.91)	.054
Hcy(umol/L), Median (Quartile)	13.45(11.1,17.1)	13.55(10.9,16.38)	.406

* **SLE**: systemic lupus erythematosus; **B.M.I**: Body Mass Index; **Cardiovascular risks positive**: patients with at least one positive of smoke, coronary heart disease, hypertension, diabetes, obesity or hyperlipidemia; **Non-criteria manifestations**: at least one positive of thrombocytopenia, hemolytic anemia, vulve vegetation, nephropathy, livedo reticularis, skin ulcer or non-stroke central nervous system manifestations; **ESR**: erythrocyte sedimentation rate; **CRP**: C-reactive protein; **Hcy**: homocysteine.

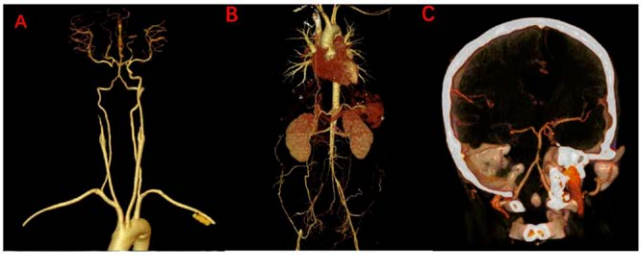

Figure: APS related Large Vessel Lesions in CT angiography and 3D Reconstruction
A. Severe stenosis of right internal carotid artery (RICA). B. Severe occlusion of right iliac artery.
C. Occlusion of right middle cerebral artery.

Disclosure of Interests: None declared
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POS0778

ULTRA HIGH-RESOLUTION ULTRASOUND (UHFUS) OF LABIAL GLANDS IS A STRONG PREDICTOR OF SALIVARY GLAND HISTOPATHOLOGY IN SJÖGREN'S SYNDROME (PSS)

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Background: Last-generation ultra high-resolution ultrasound (UHFUS) transducers, producing frequencies up to 70 MHz and achieving tissue resolution up to 30 µm, are opening up new possibilities for the study of labial salivary glands (LSG) in patients clinically suspected with primary Sjögren's syndrome (pSS).
Objectives: To explore the value of LSG-UHFUS as a predictor of the intensity of the histological inflammation in LSG biopsy in an inception cohort of patients with sicca symptoms derived from daily clinical practice.