immunodeficiency syndrome (AIDS). The reactivation of CMV depends on the immune status of host. Systemic lupus erythematosus (SLE) often requires steroid and immunosuppressive agents to induce remission and lower disease activity. This study presents the clinical presentations, laboratory characteristics, medical profile (including steroid, immunosuppressive agents, and biological agents) and clinical outcomes in SLE patients with diagnosis of CMV diseases. Further, we attempted to investigate the mortality risk factor in these patients.

Objectives: To analyse the clinical features, the mortality risk factors and all-cause mortality of Cytomegalovirus (CMV) diseases in patients with systemic lupus erythematosus (SLE) in single centre of Taiwan.

Methods: A retrospective study was performed to investigate the clinical features and identify the mortality risk factors associated with CMV diseases in patients with systemic lupus erythematosus (SLE). We reviewed the medical records in patients with SLE who were diagnosed with CMV diseases between Jan. 2006 and Dec. 2016 from Taipei Veterans General Hospital in Taiwan. Clinical and laboratory parameters as well as treatment outcomes were analysed.

Results: Fifty-six patients diagnosed with CMV diseases were enrolled in the study and separated into survivors ($n=24$) and non-survivors ($n=32$) groups. All patients in CMV disease demonstrated significantly high incidence of CMV pneumonitis (71.43%). The higher SLEDAI-2000 score ($p=0.009$, HR 1.154, 95% CI 1.037–1.285), percentage of recent pulse therapy ($p=0.013$, HR 4.569, 95% CI 1.313–15.902), and plasmapheresis during hospital course ($p=0.005$, HR 6.905, 95% CI 1.637–29.122) was more common characteristics in non-survivor group than in survivor group. Non-survivors had significantly higher percentage of pancytopenia ($p=0.001$, HR 9.667, 95% CI 2.307–40.511), CMV-positive PCR of blood and bronchoalveolar (BAL) lavage fluid (Blood: $p<0.001$, HR 15.000, 95% CI 3.932–57.223, BAL fluid: $p=0.021$, HR 6.176, 95% CI 1.151–33.151), and presence of concurrent infections (bacteremia: $p=0.026$, HR 4.833, 95% CI 1.122–20.824, other fungal infections: $p<0.001$, HR 11.424, 95% CI 2.722–47.952) than survivors. Septic shock ($n=10$, 41.2% of non-survivor group) is the most common cause of in-hospital mortality in CMV diseases.

Conclusions: The recent pulse therapy, pancytopenia, and concurrent infections are risk factors of in-hospital mortality in CMV diseases of patients with Systemic Lupus Erythematosus. The serological data of non-survivor groups showed negative findings of CMV immunoglobulin M (IgM) with detection of CMV DNA by polymerase chain reaction (PCR) was observed in CMV diseases. The pulmonary haemorrhage and acute respiratory distress syndromes (ARDS) were the factors of in-hospital mortality in CMV pneumonitis.

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AB0579 IMMUNOLOGICAL RESULTS OF SALIVARY GLAND BIOPSY AND THEIR RELATIONSHIP WITH CLINICAL AND SEROLOGICAL PARAMETERS IN PRIMARY SJÖGREN'S SYNDROME

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Background: Positive minor salivary gland biopsy (MSGB) is a major criteria for the diagnosis of primary Sjögren's Syndrome (PSS). In our centre the MSGB analysis is carried out by Immunology and Pathology Department in parallel. The immunological analysis identifies the lymphocytic composition of the inflammatory infiltrate. Their results show: the number of T and B cells, the ratio between CD4 and CD8 T lymphocytes and other non infiltrating lymphocytes.

Objectives: The goal of our study was to evaluate whether there is an association between the lymphocytic composition of the MSGB with the clinical and serological findings of PSS patients.

Methods: Patients diagnosed of PSS according American-European criteria (2002) underwent . MSGB between February and November of 2017

Demographic (sex and age), clinical (disease duration, xerostomia, keratoconjunctivitis sicca, Schirmer test, systemic disease) data were collected. Present or previous treatment with steroids and/or immunosuppressive therapy, serological studies such as ANA, RF, anti Ro and anti La were also included. MSGB data with the number of infiltrates, quantitative composition of T and B lymphocytes, CD4/CD8 ratio and presence of other non infiltrating lymphocytes were registered. Pathology data concerning Chisholm-Mason scale, presence of fibrosis, atrophy and size of infiltrate (small, moderate and severe) were also registered. A multiple logistic regression for each item of the immunological analysis adjusted for sex and age was made. We also measured the odds ratio and performed correlation test for all variables included.

Results: Table 1 and 2 summarise our cohort characteristics. The presence of T lymphocyte was associated with B lymphocyte, OR 99.21 (IC95% 5.12–1921, $p=0.002$) and with higher CD4/CD8 ratio, OR 17.34 (IC95% 1.45–206.15, $p=0.024$). CD4/CD8 ratio was also associated with the presence of T lymphocytes OR 10.54 (IC95% 2.16–51.50, $p=0.004$) and B lymphocytes were associated with the presence of T lymphocytes as well OR 5.38 (IC95% 1.63–17.72, $p=0.006$). Other non infiltrating lymphocytes were composed of CD8 T cells and were associated with a positive Schirmer test OR 17.47 (IC95% 1.62–188.13, $p=0.018$) but inversely associated with Chisholm-Mason grade ≥ 3 OR 0.09 (IC95% 0.014–0.58, $p=0.011$). There was no other association observed with clinical or analytical parameters. Colinearity test between pathological and immunological analysis was negative.

Abstract AB0579 – Table 1. Immunology, serological and treatment characteristics of patients with PSS

Variable	Absolute number (patient)	Proportion %
Men	26	45.5%
Systemic disease	34	36.2%
ANA titration		
<1/80	15	25.9%
1/80	10	17.2%
1/160	13	22.4%
1/320	10	17.2%
1/640	7	12.1%
1/1280	3	5.2%
ANA Pattern	64	
Speckled	34	53.1%
Homogenous	13	20.3%
Speck & Homogenous	12	18.8%
Others	5	7.8%
Ac. Anti Ro	5	5.2%
Ac. Anti La	0	0%
Rheumatoid Factor	11	19.0%
Other		
Antiphospholipid Ab	5	8.6%
Crioglobulines	2	3.4%
Immunosuppressant	5	8.6%
<6mo		
Immunosuppressant	14	24.2%
>6mo		
Corticosteroids <6mo	8	13.8%
Corticosteroids >6mo	15	25.9%

Abstract AB0579 – Table 2. Immunological analysis

Variable	Absolute number (patient)	Proportion %
Number of Infiltrates		
0	3	5.2%
1	32	55.2%
2	6	10.3%
3	16	27.6%
Number of T cells		
<30	11	19.0%
30-50	17	29.3%
50-80	11	19.0%
80-100	2	3.4%
100-120	9	15.6%
≥ 120	8	13.8%
CD4/CD8 Ratio		
0	11	19.0%
1/2	2	3.4%
1/1	3	5.2%
2/1	19	32.8%
3/1	19	32.8%
4/1	4	6.9%
Number of B cells		
<30	17	29.3%
30-50	11	19.0%
50-80	6	10.3%
80-100	4	6.9%
100-120	9	15.5%
≥ 120	7	12.1%
Other infiltrates		
None	38	65.5%
CD8 cells	19	32.8%
CD4+CD8 cells	1	1.7%
Inadequate sample	1	1.7%

Conclusions: MSGB in our PSS patients demonstrated an association between T lymphocytes, B lymphocytes and CD4/CD8 ratio. The infiltrate is mostly based on CD4 more than CD8 T cells. Other significant findings were the association between CD8 T lymphocytes and Chisholm-Mason scale grade ≥ 3 , regardless of the number of infiltrates. No correlation or colinearity was observed with the number of infiltrates by immunological analysis and the Chisholm-Mason grade reported by the pathology analysis.

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