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Characteristics of pregnancy with Systemic Lupus Erythematosus (SLE) in Dr. Mohammad Hoesin Hospital, Palembang

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ABSTRACT

Background: Systemic Lupus Erythematosus (SLE) is an autoimmune disease with complex pathogenesis with broad clinical manifestations, more common in women of reproductive age between 15-44 years, so there is an increased incidence in pregnancies.

Methods: This study was a descriptive observational study with a cross-sectional design using medical records of patients in Dr. Mohammad Hoesin Hospital Palembang from January 2018-June 2020. Sampling was carried out by total sampling with the presentation of data in tables and narratives. Data processing was performed using SPSS 25.

Results: There were 1,039 pregnancies in January 2018-June 2020 with 26 pregnancies with SLE and 8 patients (30.8%) of moderate degree SLE. The demographic characteristics were 26-30 age range (30.8%), high school education status (53.8%), the number of pregnancies 2-3 times (53.8%), the number of primiparous births (46.2%), and the number of miscarriages was never experienced (65.4%). Based on clinical signs and symptoms, malaise (15.4%), malar rash, photosensitivity spots and alopecia (15.4%), inflammatory arthritis (46.2%), lupus nephritis (11.5%), abdominal pain (34.6%), lymphadenopathy (3.8%), anemia or lymphopenia (15.4%), and cephalgia (7.7%). Meanwhile, the parameter of diagnosis was lymphopenia (15.4%), eGFR stage 1 (34.6%), proteinuria or proteinuria and cylindruria (11.5%), ANA test (+) (19.2%), anti-dsDNA test (+) (19.2%), and the complement test decreased (7.7%). Pregnancy outcomes were found to have intrauterine growth restriction (IUGR) (19.2%) and preeclampsia and IUGR (11.5%).

Conclusion: From the 26 pregnant patients with SLE, most were found with a moderate degree. Most demographic characteristics were age range 26-30 years old, high school education status, number of pregnancies 2-3 times, primipara, and never miscarriage. Characteristics of clinical signs and symptoms most commonly found in patients were malaise, malar rash, photosensitivity spots and alopecia, inflammatory arthritis, and abdominal pain. The diagnosis parameters were lymphopenia, stage 1 eGFR, proteinuria or proteinuria and cylindruria, ANA test (+), and anti-dsDNA test (+). Most pregnancy outcome is intrauterine growth restriction (IUGR).

Keywords: Systemic Lupus Erythematosus, Pregnancy, Intrauterine Growth Restriction.
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BACKGROUND

Systemic lupus erythematosus (SLE) is an autoimmune disease with complex pathogenesis that can damage the body's organs with broad and intermittent clinical manifestations. SLE's risk ratio in women and men is 15: 1 to 22: 1, which means that SLE is more common in women, especially in women of reproductive age between 15-44 years.[1,2]

Based on this, there is an increased incidence of pregnancy with SLE. SLE patients who experience remission more than six months before pregnancy have a 25% risk of exacerbations during pregnancy and 90% of good pregnancy outcomes, whereas in patients whose remission period is SLEs than six months, the risk of exacerbations is 50% during pregnancy and have poor pregnancy outcome. If a pregnancy occurs while the SLE is active, the risk of fetal death will increase to between 50–75% and the maternal mortality rate to 10%.[3]

In pregnancy with SLE, it is necessary to distinguish between a clinical symptom of the disease and a physiological change during pregnancy because they are similar to SLE clinical symptoms, so that the diagnosis of SLE in pregnancy is increasingly difficult to establish early, as in normal pregnancy, the changes obtained are flush facial, palmar erythema, postpartum hair loss, arthralgia and myalgia, anemia and mild thrombocytopenia. The active SLE clinical symptoms may include photosensitivity spots and oral or nasal ulcers, inflammatory arthritis, leukopenia or lymphopenia, as well as immune hemolytic anemia and thrombocytopenia.[4]

The risk of maternal and fetal complications will increase if, during pregnancy with SLE in conditions of a

lupus flare, active disease, significant proteinuria or lupus nephritis, and anti-phospholipid antibodies glucocorticoid therapy as well as with chronic hypertension, preeclampsia, or both.[4,5]

Increased cases of pregnant women with SLE have been recorded in several hospitals in Indonesia, but there is no data at Dr. Mohammad Hoesin Hospital (MHH), which has been published. Therefore, researchers are interested in researching pregnant women with SLE. Aspects to be studied include prevalence, description of clinical signs and symptoms, description of laboratory tests, pregnancy outcome with SLE, and the impact of pregnancy with SLE on the fetus. The data used in this study is secondary data, namely medical record data from pregnant women patients with SLE at MHH during the period from January 2018 to June 2020.

METHOD

This research is a descriptive observational study with a cross-sectional design to determine pregnant women's characteristics with SLE. This research was conducted from September to November 2020 in the Medical Staff Group (MSG) of Obstetrics and Gynecology at Dr. Mohammad Hoesin Hospital (MHH) and the Medical Records Casemix Division of MHH. Sampling was carried out by total sampling, i.e., all population units that met the inclusion criteria were taken as a sample unit with the inclusion criteria, namely patients aged 15–44 years, and the required variable SLE were recorded in the medical records.

Data collection was carried out unexpectedly following the SLE given by officers at the Obstetrics and Gynecology MSG and the MHH Medical Records Division. Each medical record provided by the officer, one by one, will be recorded or inputted by a third party on the computer until the entire population unit has been inputted.

Data processing was performed using computer assistance with Microsoft Excel and Statistical Package for Social Science (SPSS) 25.

Data analysis to describe the pregnancy characteristics of patients diagnosed with SLE at MHH was carried out descriptively. Data are presented in tabular and narrative form.

Table 1. Prevalence of pregnant patients with SLE

Period (Years)	Number of Pregnancy per Year	Number of Pregnant Patients with SLE	Percentage (%)
January s.d December 2018	501	10	2.0 %
January s.d December 2019	390	10	2.6 %
January 2020 s.d June 2020	148	6	4.1 %
Total	1.039	26	2.5%

Table 2. SLE disease activity scoring

Stage of Disease (based on the SLEDAI scoring system)	Total (n)	Percentage (%)
No disease activity (score 0)	3	11.5 %
SLE with mild disease activity (scores 1-5)	7	26.9 %
SLE with moderate disease activity (score 6-10)	8	30.8 %
SLE with severe disease activity (score 11-19)	5	19.2 %
SLE with very severe disease activity (score ≥ 20)	1	3.8 %
Cannot be assessed	2	7.7 %
Total	26	100 %

Table 3. Distribution of Demographic Characteristics Distribution

Demographic Characteristics	Total (n)	Percentage (%)
Age		
15-20 years	1	3.8 %
21-25 years	4	15.4 %
26-30 years	8	30.8 %
31-35 years	7	26.9 %
36-40 years	6	23.1 %
41-44 years	0	0 %
Total	26	100 %
Education		
Primary School	1	3.8 %
JHS	1	3.8 %
SHS	14	53.8 %
University	5	19.2 %
Total	21	80.8 %
Number of Pregnancy		
Primigravida	5	19.2 %
2-3 times	14	53.8 %
4-5 times	6	23.1 %
6-7 times	0	0 %
> 7 times	1	3.8 %
Total	26	100 %
Number of Births		
Nulipara	7	26.9 %
Primipara	12	46.2 %
Multipara	7	26.9 %
Total	26	100 %

RESULT

This study uses secondary data from medical records of patients diagnosed as pregnant with SLE at Dr. Hospital. Mohammad Hosein Palembang for the period January 2018-June 2020. There were 1.039 pregnancies, with 26 SLE pregnancies (2.5%) (Table 1).

Table 4. Distribution of Symptoms and Clinical Signs. Constitutional

Characteristics of Symptoms and Clinical Signs (Constitutional Symptoms)	Total (n)	Percentage (%)
Fatigue	1	3,8 %
Malaise	4	15,4 %
Malaise and weight loss	1	3,8 %
Malaise and fever (without evidence of infection)	1	3,8 %
Fever (without evidence of infection)	1	3,8 %
Weight loss	1	3,8 %
No symptoms	17	65,4%
Total	26	100%

Table 5. Distribution of Mucocutaneous Symptoms and Clinical Signs

Characteristics of Symptoms and Clinical Signs (Mucocutaneous)	Total (n)	Percentage (%)
Malar rash	1	3,8 %
Discoid rash	0	0 %
Photosensitivity patches	0	0 %
SLE mucous membranes (Oral or nasal ulcers)	1	3,8 %
Alopecia	1	3,8 %
Skin rash	0	0 %
Raynaud's phenomenon	0	0 %
Purpura	0	0 %
Urticaria	1	3,8 %
Vasculitis	0	0 %
Malar rash dan Alopecia	2	7,7 %
Malar rash, photosensitivity patches, and alopecia	4	15,4 %
Discoid rash, photosensitivity patches, mucous membrane SLEi (oral or nasal ulcers), and alopecia	1	3,8 %
Malar rash, discoid rash, photosensitivity patches, mucous membrane SLEi (oral or nasal ulcers) and alopecia	2	7,7 %
No symptoms	13	50 %
Total	26	100 %

Table 6. Distribution of Musculoskeletal Symptoms and Clinical Signs

Characteristics of Symptoms and Clinical Signs (Musculoskeletal)	Total (n)	Percentage (%)
Inflammatory arthritis	12	46,2 %
Polyarthritis	1	3,8 %
Arthralgia	0	0 %
Myositis	0	0 %
No symptoms	13	50%
Total	26	100 %

Of the 26 pregnant patients with SLE, 24 of them were assessed for disease activity, with the result that eight patients had a moderate degree of SLE with a percentage of 30.8% (Table 2).

Of the 26 patients, demographic characteristics were obtained, the most patients were in the age range 26-30 years, as many as eight patients (30.8%) with an average age of 30 years with the youngest age 20 years and the oldest age 40 years. The educational status of the 26 patients, five of them did not have a history of education in the medical record data, so that of the 21 patients, it was found that the highest education status was high school (53.8%) in 14 patients. In 14 pregnant patients with LES had 2-3 pregnancies (53.8%), the number of primiparous births in 12 patients (46.2%), and the number of miscarriages never experienced (65.4%) in 17 patients (Table 3).

Symptoms and clinical signs in 26 patients were found to be mostly malaise in four patients (15.4%) (Table 4).

The most mucocutaneous clinical signs and symptoms in 26 patients were malar rashes, photosensitivity spots, and alopecia in four patients (15.4%) (Table 5).

In musculoskeletal clinical signs and symptoms, 12 out of 26 patients had inflammatory arthritis (46.2%) (Table 6).

Data from 26 pregnant patients with LES found that three patients showed symptoms and clinical signs of kidney, known as lupus nephritis (11.5%) (Table 7).

In gastrointestinal clinical signs and symptoms, the most common was abdominal pain complained of by nine patients (34.6%) (Table 8).

Of the 26 patients, no patients (0%) showed symptoms and clinical signs of the lungs, such as pleural abnormalities, lung parenchymal or pulmonary vascular lesions. None of the patients (0%) showed the presence of pericarditis, myocarditis or endocarditis. In reticuloendothelial clinical signs and symptoms, out of 26 patients, one patient had lymphadenopathy (3.8%) (Table 9).

Of the 26 patients examined for hematology's clinical signs and symptoms, four had anemia or lymphopenia (15.4%) (Table 10).

Two out of 26 patients showed neuropsychiatric symptoms in cephalgia with unknown etiology (7.7%) (Table 11).

Of the 26 patients, there were no patients (0%) who experienced vascular clinical signs and symptoms in the form of venous and arterial thrombosis. There were no patients (0%) who had ocular clinical signs and symptoms in the form of conjunctivitis.

In the parameters of diagnosis, of the 26 patients, only 24 patients had a supporting examination sheet on their medical records. Of the 24 patients, it was found that the complete blood count was lymphopenia in four patients (15.4%). In examining kidney function with an estimated GFR using the formula Cockroft and Gault, it was found that nine patients had stage 1 eGFR results (34.6%). Three patients had proteinuria (11.5%) on urinalysis, and three patients also had proteinuria and cylindrical (11.5%). In the immunological examination, three examinations were examined in several patients, including the ANA test with positive results in five patients (19.2%), the anti-dsDNA test positive results in five patients (19.2%), and the complement test results decreased in two patients (7.7%) (Table 12).

In pregnancy outcomes, both maternal and fetal, the most common was preeclampsia, and fetal growth was stunted in three patients (11.5%). Only the most fetal outcome was stunted fetal growth in five patients (19.2%) (Table 13).

Table 7. Distribution of Kidney Clinical Signs and Symptoms

Characteristics of Symptoms and Clinical Signs (Kidney)	Total (n)	Percentage (%)
Hematuria	0	0 %
Proteinuria	1	3,8 %
Cylindruria	0	0 %
Nephrotic syndrome	0	0 %
Kidney failure	0	0 %
Lupus nephritis	3	11,5%
Proteinuria and cylindruria	1	3,8 %
Hematuria and proteinuria	1	3,8 %
Hematuria, proteinuria, and lupus nephritis	1	3,8 %
Proteinuria, cylindruria, and lupus nephritis	2	7,7 %
No symptoms	17	65,4%
Total	26	100 %

Table 8. Distribution of Gastrointestinal Symptoms and Clinical Signs

Characteristics of Symptoms and Clinical Signs (Gastrointestinal)	Total (n)	Percentage (%)
Anorexia	0	0 %
Nausea	3	11,5 %
Vomiting	0	0 %
Nausea and vomiting	3	11,5 %
Diarrhea	0	0 %
Abdominal pain	9	34,6 %
No symptoms	11	42,3 %
Total	26	100 %

Table 9. Distribution of Reticuloendothelial Symptoms and Clinical Signs

Characteristics of Symptoms and Clinical Signs (Reticuloendothelial)	Total (n)	Percentage (%)
Lymphadenopathy	1	3,8 %
Splenomegaly	0	0 %
Hepatomegaly	0	0 %
No symptoms	25	96,2 %
Total	26	100 %

DISCUSSION

Based on the data obtained, the prevalence of pregnant patients recorded at MHH from January 2018 to June 2020 reached 1,039 pregnancies. Meanwhile, the prevalence of pregnant patients with SLE during that period was only 26 pregnancies, with a percentage of 2.5%. Different things were reported in the study conducted by Khairani et al. at Dr. Kariadi Semarang, where there were 4% of pregnancies with SLE, 16 out of 422 patients in January 2013 December 2016. Based on these data, it can be concluded that the incidence of pregnancy with SLE is still small. This study is in line with research conducted by Prof. Handono Kalim et al., where the incidence of SLE is still minimal in Indonesia.[1,6]

In demographic characteristics, age is classified into six age group groups. Of the 26 pregnant patients with SLE, the most extensive age range for pregnant patients, SLE is in the age range 26-30 years. This research is in line with what is written in the book Diagnosis and Management of Systemic Lupus Erythematosus from the Recommendations of the Indonesian Rheumatology Society written by Sumariyono et al., where the onset and clinical symptoms of SLE generally appear mostly at the age of 21-30 years. In the study, patients' mean age was 30 years, with the highest age being 26 years, and the youngest age was 20 years, and the oldest was 40 years.[2]

In the demographic characteristics of educational status, of the 26 pregnant patients with SLE, five of them did not have data on educational status. Of the 21 patients, the most educational status obtained from the patients was senior high school (SHS), namely 14 patients with 53.8%. Contrary to Yanih in 2016, most

SLE sufferers are university graduates, both public and private.[7]

Another characteristic of demographic data is the number of patient pregnancies. Of the 26 pregnant patients with SLE, 14 patients (53.8%) were pregnant 2-3 times, making it the highest number of pregnancies. Khairani et al. in 2018 at Dr. Kariadi Semarang, where the highest number of pregnancies was in patients with SLE, namely 2-3 times the number of pregnancies.[6]

Data on the number of births were also obtained from the patient's medical records, where out of 26 patients, 12 patients (46.2%) had given birth once or were primiparous. Different things were reported in the study of pregnancy characteristics with SLE conducted by Khairani et al. in 2018 at Dr. Kariadi Semarang. In that study, the highest number of births in patients with SLE was multiparous or patients who had given birth several times.[6]

Another critical data is the number of miscarriages. From the medical records of 26 patients, 17 patients had never experienced a miscarriage with a percentage of 65.4%. From medical record data, most patients experience abortion at 7–8 weeks of gestation and 12–16 weeks of pregnancy because fetal death due to abortion in pregnant patients with SLE can increase by 2-3 times as written in the SLE book in Pregnancy by Akbar et al. by 2020. Fetal mortality due to abortion can be more solemn if a pregnant patient with SLE has secondary anti-phospholipid syndrome (APS), which can cause recurrent pregnancy loss in the patient three times or more. As in this study, one of the four patients suffering from SLE and APS experienced abortion three times in a row at 12-13 weeks of gestation.[4,8]

Constitutional clinical signs and symptoms are often encountered in patients. Namely, malaise complained of four patients with 15.4%. More than one clinical symptom and signs in one patient, such as two patients whose medical records were recorded as follows: one patient (3.8%) was noted to experience malaise and body loss, and one patient (3.8%) experienced malaise. And fever (without evidence of infection). Manole et al. in 2011, which discussed the manifestations of SLE, which in that study revealed that the most common symptoms that can be found in SLE patients are malaise, fever, and weight loss.[9]

In gastrointestinal symptoms and clinical signs, the most commonly found is abdominal pain. Abdominal pain in normal pregnancy and pregnancy with SLE needs to be differentiated because gastrointestinal manifestations may result from SLE or therapy complications.[10]

In the pulmonary and cardiac clinical signs and symptoms, the patient did not find it. This study shows that the patients do not see medical complications affecting the lungs, such as a lupus flare in certain circumstances and organ failure risk.[4] However, patients with lupus carditis were not described as pericarditis, myocarditis, or endocarditis. SLE involvement in the heart can affect the pericardium, myocardium and endocardium. In one study, pericarditis was estimated to affect 25% of patients with SLE at the time of disease onset or relapse, whereas myocarditis was less common.[11]

There was one patient who experienced lymphadenopathy. Lymphadenopathy can differentiate normal pregnancy, and SLE pregnancy due lymphadenopathy was specific for SLE. Besides, lymphadenopathy can also be a sign of flare of SLE, which can be confirmed with certainty if there is also an increase in the characteristics of the rash, arthritis, fever, and anti-dsDNA antibodies are present.[8]

Table 10. Distribution of Symptoms and Clinical Signs of Hematology

Characteristics of Symptoms and Clinical Signs (Hematology)	Total (n)	Percentage (%)
Anemia	4	15,4 %
Hemolysis	0	0 %
Lupus anticoagulants	0	0 %
Leukopenia	0	0 %
Lymphopenia	4	15,4 %
Thrombocytopenia	1	3,8 %
Anemia, thrombocytopenia, and lymphopenia	3	11,5 %
Anemia, leukopenia, and lymphopenia	1	3,8 %
Anemia and lymphopenia	3	11,5 %
Anemia and thrombocytopenia	3	11,5 %
Anemia and leukopenia	1	3,8 %
Thrombocytopenia and lymphopenia	1	3,8 %
No symptoms	5	19,2 %
Total	26	100 %

Table 11. Distribution of Symptoms and Clinical Signs of Neuropsychiatry

Characteristics of Symptoms and Clinical Signs (Neuropsychiatry)	Total (n)	Percentage (%)
Seizures	0	0 %
Psychosis	0	0 %
Cranial and peripheral neuropathy	0	0 %
Organic brain syndrome	0	0 %
Transverse myelitis	0	0 %
Cognitive impairment	0	0 %
Mood disorders	0	0 %
Cephalgia (whose etiology is not exact)	2	7,7 %
No symptoms	24	92,3%
Total	26	100%

Table 12. Distribution of Parameters for Diagnosis

Parameters of the Diagnosis Enforcement	Results	Total (n)	Percentage (%)
Complete blood count examination An	Hemolytic anemia	0	0 %
	Anemia	3	11,5 %
	Leukopenia	0	0 %
	Lymphopenia	4	15,4 %
	Thrombocytopenia	1	3,8 %
	Anemia, thrombocytopenia, and lymphopenia	2	7,7 %
	Hemolytic anemia, thrombocytopenia and lymphopenia	1	3,8 %
	Anemia, leukopenia and lymphopenia	1	3,8 %
	Anemia and lymphopenia	3	11,5 %
	Anemia and thrombocytopenia	2	7,7 %
	Anemia and leukopenia	1	3,8 %
	Thrombocytopenia and lymphopenia	1	3,8 %
	Hemolytic anemia and thrombocytopenia	1	3,8 %
	There is no check sheet	2	7,7 %
	Normal	4	15,4 %
Total		26	100 %
Kidney function tests: *Estimated Glomerular Filtration Rate* (eGFR)	Stage 1	9	34,6 %
	Stage 2	2	7,7 %
	Stage 3a	0	0 %
	Stage 3b	0	0 %
	Stage 4	0	0 %
	Stage 5	0	0 %
	There is no check sheet	2	7,7%
	Cannot be evaluated	13	50 %
Total		26	100%
Urinalysis Examination	Proteinuria	3	11,5 %
	Cylindruria	0	0 %
	Proteinuria and cylindruria	3	11,5 %
	Normal	13	50,0 %
	There is no check sheet	2	7,7 %
	Not inspected	5	19,2 %
Total		26	100 %
Immunology examination: *1. Antinuclear Antibodies* (ANA) Test	Positive	5	19,2 %
	Negative	1	3,8 %
	There is no check sheet	2	7,7 %
	Not inspected	18	69,2 %
Total		26	100 %
2. Anti-dsDNA	Positive	5	19,2 %
	Negative	1	3,8 %
	There is no check sheet	2	7,7 %
	Not inspected	18	69,2 %
Total		26	100 %
3. Complement test (C3, C4, or CH50)	Normal	0	0 %
	Decline	2	7,7 %
	Enhancement	0	0 %
	There is no check sheet	2	7,7 %
	Not inspected	22	84,6 %
Total		26	100 %

Table 13. Distribution of Maternal and Fetal Outcomes

Variable of Maternal and Fetal	Total (n)	Percentage (%)
Abortus	0	0 %
Sectio Caesarea	2	7,7 %
Preterm delivery	0	0 %
Preeclampsia	0	0 %
Preeclampsia and SFG	3	11,5%
Stunted fetal growth (SFG)	5	19,2 %
Maternal and fetal death	1	3,8 %
Neonatal syndrome lupus erythematosus (SLE)	0	0 %
There were no problematic maternal and fetal outcomes	1	3,8 %
Lack of data	14	53,8 %
Total	26	100 %

Common symptoms and clinical signs of hematology are anemia or lymphopenia. Anemia is found with mild thrombocytopenia in normal pregnancy; therefore, to differentiate it from pregnancy with SLE, a complement level examination is necessary. The results were confirmed for SLE if there was a decreased complement level.[4]

On a complete blood count, out of 24 patients, it was found that most complete blood counts were laboratory results that showed lymphopenia. Sumariyono et al. in 2019. One of the most laboratory manifestations is lymphopenia and can make it the difference between pregnancy with SLE and normal pregnancy. Lymphopenia was found to be significantly associated with the presence of lupus nephritis, high steroid doses, and cyclophosphamide administration.[2,12]

None of the patients had their renal function checked or glomerular filtration rate (GFR), so that the researchers conducted an assessment of kidney function using the equation formula Cockcroft and Gault using body weight (kg) and the patient's serum creatinine test results. From these calculations, nine patients showed stage one eGFR results. We confirm the diagnosis of lupus nephritis, it is necessary to examine the GFR, and the examination will show a decrease from the standard limit of 90 or more. In addition to GFR, other signs are to see the presence of hematuria and proteinuria.[4,13]

On urinalysis, only proteinuria or both (proteinuria and cylindruria) could be found in the patient. Six patients had proteinuria caused by physiological changes in pregnancy because the results were not >300 mg/day. Proteinuria in pregnancy with SLE can be found >300 mg/day.[4]

As for immunological examinations, only the ANA, anti-dsDNA, and complement tests were recorded in several patients' medical records from several examinations. From these data, it is known that the positive ANA test results, the positive anti-dsDNA test, and the decreased complement test results are the most common results found in patients undergoing immunological examinations. These tests are essential for diagnosing a pregnancy with SLE because the ANA test serum ANA antibody can be found in people with active SLE. The positive anti-dsDNA test results and decreased complement levels can differentiate between a normal pregnancy and an SLE pregnancy. The anti-dsDNA test can also be a marker of flares lupus that attack the kidneys or lupus nephritis in the medical record. Only one patient was diagnosed with lupus nephritis who gave positive anti-dsDNA examination results. In contrast, others did not, and some were negative.[2,4]

Preeclampsia and stunted fetal growth (SFG) were the most common finding in maternal and fetal outcomes. Both of them occurred in one severe preeclampsia patient with a history of previous hypertension and one patient with severe preeclampsia, a history of hypertension, accompanied by moderate degrees of SLE activity assessment. The stunted fetal growth was the most outcome with three SLE patients. According to a study conducted by Stanhope in 2012, where he stated that also to labor preterm and preeclampsia, lupus nephritis could also increase the risk of adverse fetal outcomes, namely stunted fetal growth. Pregnancy with SLE is a risky pregnancy because it can increase pregnancy complications 2-4 times. Therefore it is necessary to monitor the symptoms of hypertension and fetal growth. Pregnancy with SLE may be continued until term if there are no symptoms of hypertension or fetal growth restriction, or fetal distress.[4,14]

CONCLUSION

Of the 26 pregnant patients with SLE, most were encountered with moderate degrees. Most demographic characteristics are 26-30 years old, high school education status, 2-3 times pregnancy, primiparous, and never abortion. Characteristics of clinical signs and symptoms, most commonly malaise, malar rash, photosensitivity spots, and alopecia, inflammatory arthritis and abdominal pain. The most diagnosis parameters were lymphopenia, stage 1 eGFR, proteinuria or proteinuria and cylindruria, ANA (+) test, and anti-dsDNA (+) test. The most considerable pregnancy outcome is stunted fetal growth (SFG).

DISCLOSURE

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None

ETHICAL STATEMENT

Ethics approval has been obtained from the Ethics Committee, Faculty of Medicine, Universitas Sriwijaya, Palembang, Indonesia, prior to the study being conducted.

AUTHOR CONTRIBUTIONS

All authors who listed in this manuscript have contributed in designing and concepting the study frameworks, data analyzing, and preparing the publish manuscript.

CONFLICT OF INTEREST

All authors declared no conflict of interest regarding this study.

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