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DIAGNOSTIC VALUE OF SLICC CRITERIA COMPARED TO ACR CRITERIA IN DIAGNOSING SLE PATIENTS IN HAJI ADAM MALIK MEDAN GENERAL HOSPITAL CENTER IN THE YEAR 2010 – 2017

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Abstract

Systemic Lupus Erythematosus (SLE) is an autoimmune rheumatic disease that has variety symptoms and affects multi organ or system in the body. ACR criteria has made in 1997 for the diagnosis of SLE disease and in 2012 appeared a new criteria to diagnose SLE: SLICC criteria. The purpose of this study was to determine the diagnostic criteria SLICC compared to the ACR criteria in diagnosing patients with SLE in Haji Adam Malik Hospital in 2010-2017.
Method: This research is an analytic cross-sectional study type. The data collection was conducted by using the medical records of patients with SLE at Adam Malik Hospital in 2010-2017.
Result: The results showed that SLE is most common in women, as many as 69 patients (89.6%) and majority in reproductive age (15-40 years) 65 patients (84.4%). Clinical manifestations that most of patients have consecutively are arthritis that as many as 75 patients (97.4%), immunological disorders as many as 61 patients (79.2%), and malar rash as many as 59 people (76.6%). The diagnostic value sensitivity SLICC criteria amounted to 88.7% and the specificity SLICC is at 100%.
Conclusion: SLICC criteria diagnostic value compared to the ACR criteria is a sensitivity of 88.7% and specificity of 100%.

Introduction

Systemic Lupus Erythematosus (SLE) is an autoimmune rheumatic disease characterized by widespread inflammation, affect any organ or system in the body and more common in women, especially at the age of 15-40 years (reproduction).[1,2] The prevalence of SLE in different countries varies greatly, in America the prevalence 52 cases /100.000 people and the incidence increased tripled in the last 40 years. Head of Research and Development Agency of Health Ministry of Health, dr. Dr. Trihono, MSc stated that in Indonesia, people with lupus (ODAPUS) is estimated at 1.5 million people with 100,000 new ODAPUS discovered every year. According to the Lupus Foundation of Indonesia, the number of odapus in Indonesia increased from 2004 until the end of 2007 is recorded 8018 people. While in the year 2012 has reached 12,700 people. And in 2013's sufferer has reached 13.300.[3,4]

SLE can affect multiple organs, such as kidneys, musculoskeletal, neurological, skin, cardiovascular, including the oral cavity. Manifestation that arise in some organs can occur in recurrent and can disrupt the quality of life for patients SLE.[5,6]Because of such conditions, the SLE often dubbed as The Great imitator because it can cause a variety of symptoms that are very similar to the symptoms caused by other diseases, so diagnosis of SLE is very difficult to enforce.[7]Albilia et al (2007) reported that 30% of SLE patients had complications in the kidneys and 40% can suffer lesions on oral cavity.[8]Therefore we need a criteria that can be helpful in establishing a diagnosis of SLE disease. A criteria for the diagnosis of SLE disease has made in 1997, the ACR criteria, has level of sensitivity of 97% and specificity of 99%.[8]In 2012 appeared a new criteria to diagnose SLE is SLICC where the research conducted by Amezcua et al (2015) note that SLICC criteria had a sensitivity of 92% and specificity of 99% .[9] Referring to the above criteria, the author felt the need to do a study of the field of general medicine, especially regarding sensitivity and specificity SLICC to diagnose a disease SLE.

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Method

This research uses analytical research methods withcross-sectional study design. The research was conducted at the General Hospital Haji Adam Malik Medan. The data collection uses secondary data that obtained from medical records of patients with a diagnosis of SLE in Haji Adam Malik Hospital that existed in 2010 - 2017. The samples were taken with total sampling technique and processed using statistical software.

Result

The subjects were patients with a diagnosis of SLE on Haji Adam Malik Medan General Hospital Center with the number of 77 people. Based on sex, the majority of research subjects is women that as many as 69 people (89.6%), while men are as much as eight people (10.4%).Based on age group, majority subject is in reproductive age (15-40 years) as many as 65 people (84.4%), followed by the age group> 40 years as many as 12 people (15.6%).For clinical manifestations of SLE can be seen in Table 1.

Table1 Frequency of SLE Patients Clinical Manifestations

Clinical Manifestations	Frequency (n=77)	Percentage (%)
ACR		
Malar Rash	59	76.6
Discoid Rash	20	26
Photosensitivity	34	44.2
Oral Ulcers	28	36.4
Arthritis	75	97.4
Serositis	22	28.6
Renal disorder	25	32.5
Neurologic disorder	5	6.5
Hematologic disorder	52	67.5
Immunologic disorder	61	79.2
ANA		
-Negative (0-20)	20	26
-Positive (>20)	57	74
SLICC		
Acute cutaneous lupus	59	76.6
Chronic cutaneous lupus	20	26
Oral or nasal ulcers	28	36.4
Non-scarring alopecia	43	55.8
Arthritis	75	97.4
Serositis	22	28.6
Renal	25	32.5
Neurologic	5	6.5
Hemolytic anemia	4	5.2
Leukopenia	24	31.2
Thrombocytopenia	17	22.1
ANA		
-Negative (0-20)	20	26
-Positive (>20)	57	74
Anti-dsDNA		
-Negative (0-200)	25	32.5
-Positive (>200)	52	67.5

The most clinical manifestations of SLE is arthritis as many as 75 people (97.4%) and the second is an immunological disorders as many as 61 people (79.2%), which on examination ANA were found 57 people (74%) with positive results. While in anti-dsDNA examination,there are 52 people with positive results (67.5%). Malar rash on the clinical manifestations in research found59 people (76.6%). 52 people (67.5%) found as

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hematological disorder, consisting of leukopenia as many as 24 people (31.2%), thrombocytopenia as many as 17 people (22.1%), hemolytic anemia of 4 people (5.2%), and 7 (9.1%) anemia with an unknown cause. Clinical manifestations of photosensitivity, oral ulcer, and discoid rash as many as 34 people (44.2%), 28 people (36.4%), and 20 people (26%). Kidney disorders and serositis found as many as 25 people (32.5%) and 22 people (28,6%). The neurological disorders in our research as many as 5 people (6.5%).

Table2 SLICC criteria compared to the ACR criteria as the gold standard in SLE patients

| | | ACR | | |
		Positive	Negative	Total
SLICC	Positive	63 (81,8%)	0 (0%)	63 (81,8%)
	Negative	8 (10,4%)	6 (7,8%)	14 (18,2%)
	Total	71 (92,2%)	6 (7,8%)	77 (100%)

From the above results, the value of diagnostic sensitivity and specificity are 100% and 88,7%, while the positive predictive value and negative predictive value are obtained 100% and 42,9%.

Disscusion
Clinical manifestations in SLE patients who are found in this study of malar rash, discoid rash, photosensitivity, ulcers in the mouth or nose, arthritis, serositis, kidney disorders, neurological disorders, hematological disorders, immunological disorders such as ANA and Anti- dsDNA. The most clinical manifestations is arthritis that as many as 75 people (97.4%). This is in line with research Bertsias et al which in his research that the prevalence of arthritis by 84%, which is also the most prevalent. The second most of clinical manifestations is immunological disorders as many as 61 people (79.2%), which were obtained as many as 57 people (74%) positive ANA examination and as many as 52 people (67.5%) positive anti-ds DNA examination. This is in line with research conducted by Bertsias et al where the prevalence ofANA is 96% and anti-dsDNA by 78%. Mani festations of the skin which malar rash as many as 59 people (76.6%), discoid rash as many as 20 people (26%), photosensitivity as many as 34 people (44.2%), and ulcers in the mouth of as many as 28 people (36.4%). This is in line with research Bertsias et al which showed that the prevalence of malar rash, 58%, 10% discoid rash, photosensitivity by 45%, and ulcers in the mouth by 24% .[10]

In this study, the results of the sensitivity and specificity of the diagnostic criteria SLICC of 88.7% and 100%. This is in line with research conducted by Amezcua et al where the research found that the sensitivity and specificity criteria SLICC by 92% and 99% .[9]

In this study, the results of a positive predictive value of 100%. This is in line with research Amezcua, et al that the research obtained a positive predictive value of 98.9% SLICC criteria, in this study also obtained a negative predictive value of 42.9%. This result does not correspond to the research conducted by Amezcua et al where the study found that the negative predictive value of 92.5% SLICC criteria.[9] This may be caused by the presence of several variables that can not be observed during the study period that caused the difference in the results of predictive value negative and the samples were too small. Additional studies with larger sample size will undoubtedly lead to better accuracy iin diagnostic SLE patient.

Conclusion
The sensitivity and specificity of diagnostic SLICCcriteria are 88.7% and 100%.

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