



## Assess the knowledge regarding the risk of cardiovascular diseases among systemic lupus erythematosus patient

Parimala L\*, Vanitha R

Department of Medical Surgical of Nursing, Saveetha College of Nursing, SIMATS, Chennai, Tamil Nadu, India

### Article History:

Received on: 15.03.2019

Revised on: 19.06.2019

Accepted on: 24.06.2019

### Keywords:

Risk of Cardiovascular Diseases,  
Systemic Lupus Erythematosus

### ABSTRACT

India is a country with different beliefs like religious, cultural, variation and economic diversity in the health care setting. SLE is a long term disease which involves multisystem, leading to loss of immune tolerance to own antigens. The study aims to assess the knowledge regarding the risk of cardiovascular diseases among systemic lupus erythematosus patient at Saveetha Medical College and Hospital. A quantitative research approach was adopted with convenient sampling technique to select 60 patients with systemic lupus erythematosus who attend at Saveetha Medical College and Hospital. Data was collected using a semi-structured questionnaire. The data was organized and analyzed in term of descriptive statistics. The study findings revealed that among 60 samples, 10 (16.7%) had inadequate knowledge; 16 (26.7%) had moderate knowledge, 34 (56.7%) had adequate knowledge on systemic lupus erythematosus risk. The majority of the patients with systemic lupus erythematosus had moderate knowledge regarding the risk of cardiovascular.



### \*Corresponding Author

Name: Parimala L

Phone:

Email: [pariamla.scon@saveetha.com](mailto:pariamla.scon@saveetha.com)

ISSN: 0975-7538

DOI: <https://doi.org/10.26452/ijrps.v10i4.1539>

Production and Hosted by

Pharmascope.org

© 2019 | All rights reserved.

### INTRODUCTION

SLE is a long term disease which involves multi-system, leading to a deficit of immune tolerance to own antigens and the building of different autoantibodies mainly affecting women's. Coronary heart disease is one of the cardiovascular manifestations observed. There are several pathophysiological mechanisms include arthritis, atherosclerosis, abnormal coronary flow, spasm and thrombosis (Brunner *et al.*, 2014). The obvious clinical symptoms of most clients with SLE is they have myocardial infarction at an early age. This demographic

characteristic reveals that patient with SLE is prone to get myocardial infarction. Severe myocardial infarction is 3 folds more in a patient with SLE than in gender and age-matched control subjects. Recent case-control studies have concluded that the prevalence of myocardial infarction in a patient with SLE is enlarged between 9 to 50 fold over that in the total population. It is identified that the patient with SLE has a high mortality rate related to cardiovascular disease (Nichols, 2008). Lupus is now reflecting on having an unhampered probability for the developing hardening of arteries. Observing CAD as a provoking disease, this consortium becomes sturdy and finer understanding (Linda, 2016).

The influence of coronary heart disease (CHD) on mortality and morbidity in patients with customary SLE has assumed increasing consequence in their long-term treatment. SLE is a long term swelling, and inflammation is an eminent feature of atherosclerotic lesions. To validate CVD characteristic in SLE, we noticed the prevalence of clinical manifestation of ischemic heart disease varying between 8% to 16% in enormous studies (N *et al.*, 2013).

Clinical observation studies dynamically suggest

that, along with classical risk factors, another mechanism accelerates conditions like atherosclerosis, SLE and other rheumatic heart diseases (Petri *et al.*, 1992; Manzi *et al.*, 1997). The systemic inflammation, directly or indirectly through its damaging effects, on the vasculature, which is a more prevalent risk factor in autoimmune disease. The increased risk of cardiovascular diseases in SLE was first recognized in 1976 by ,who described (Urowitz *et al.*, 1976).

In the past 2 -3 decades, it has become increasingly recognized, and its sequelae are a significant cause of morbidity and mortality in SLE. To date, there has been no formal attempt to devise and adapt population guidelines for the prevention of CHD in the context of SLE, although several, target valves have been suggested (Urowitz *et al.*, 1976).

conducted a study on risk factors for cardiovascular disease in systemic lupus erythematosus .the purpose of these study is to determined the prevalence of traditional & non -traditional risk factors for cardiovascular disease in systemic lupus erythematosus patients. The result of the survey is 26 women with lupus, and a history of cardiovascular disease was compared with women with an age limit of 26 with systemic lupus erythematosus (Jensen-Urstad, 1999).

The patients with SLE have a significantly increased risk of CV events due to atherosclerosis traditional cardiac risk factors cannot explain this increased risk. The researcher personally observed during a clinical experience that many patients with Systemic lupus erythematosus had the cardiovascular disease who were ignorant about the risk factors its preventive measures. Thus the investigator felt the need to assess the knowledge regarding the risk of cardiovascular diseases among systemic lupus erythematosus.

## METHODOLOGY

The Quantitative approach with descriptive research design was used to assess the knowledge regarding the risk of cardiovascular diseases among systemic lupus erythematosus patient at Saveetha Medical College and Hospital, the participants with systemic lupus erythematosus who attend outpatient department at Saveetha Medical College and Hospital and who met the inclusion criteria were selected by using non-probability sampling technique. The sample size was 60. The Inclusion criteria of the study were People who all are affected systemic lupus erythematosus, Systemic lupus erythematosus both gender who are at the age of above 40 years, Systemic lupus erythema-

tous patient who have the symptoms of cardiac vascular events and Systemic lupus erythematosus who are willing to participate. The tool consists of a demographic variable and checklist to assess the risk factors of cardiovascular diseases among systemic lupus erythematosus. The institutional ethical committee has approved the project of the institution. Informed consent was obtained from the participants before initiating the study.

## RESULTS AND DISCUSSION

Out of 60 samples belong to the age group above 40 years 60(100%), 30 (50%) were males ,30(50%) were females , With respect to Education 28(46.6%) have secondary Education; Regarding Occupation 36 (60%) were working , Regarding Income 42 (70%) have income of less than five thousands ; Religion 38(63%) were Hindus . Considering Mother Tongue 60(100%) were Tamil, Taking account of Martial status 60 (100%) were married; Regarding Type of family 42 (70%) were living as a nuclear family with a family size of 38 (63.3%).

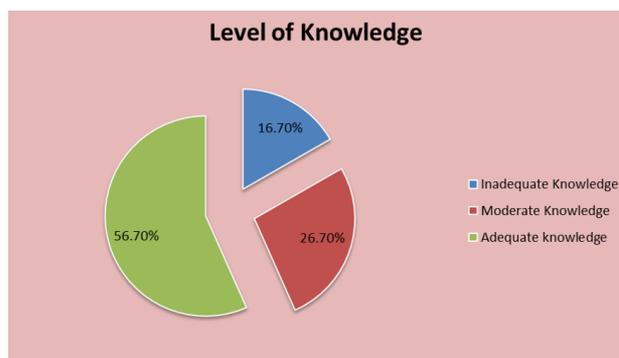
The study findings revealed that among 60 samples, 10 (16.7%) had inadequate knowledge; 16 (26.7%) had moderate knowledge, 34 (56.7%) had adequate knowledge on systemic lupus erythematosus risk. Table 1 and Figure 1

**Table 1: Distribution of the level of knowledge on risk factors of Cardio Vascular Disease among the Systemic Lupus Erythematosus patient**

LEVEL OF KNOWLEDGE	OF FREQUENCY (N)	PERCENTAGE (%)
Inadequate knowledge	10	16.7
Moderately knowledge	16	26.7
Adequate knowl- edge	34	56.7

Out of 60 samples belong to the age group above 40 years 60(100%), 30 (50%) were males ,30(50%) were females , With respect to Education 28(46.6%) have secondary Education; Regarding Occupation 36 (60%) were working , Regarding Income 42 (70%) have income of less than five thousands ; Religion 38(63%) were Hindus . Considering Mother Tongue 60(100%) were Tamil, Taking account of Martial status 60 (100%) were married; Regarding Type of family 42 (70%) were living as a nuclear family with a family size of 38 (63.3%).

The study findings revealed that among 60 sam-



**Figure 1: level of knowledge on risk factors of Cardio Vascular Disease among the Systemic Lupus Erythematosus patient**

ples, 10 (16.7%) had inadequate knowledge; 16 (26.7%) had moderate knowledge, 34 (56.7%) had adequate knowledge on systemic lupus erythematosus risk. IAN supports the present study. BRUCE (2003) researched risk for coronary heart diseases in women with SLE. They found that 5-8 times probable to develop coronary heart diseases that are women in the total population and also assessed the prevalence of the classic risk factors for coronary heart disease in systemic lupus erythematosus women. This study showed that 19 out of 229 participants with systemic lupus erythematosus and accounted for 30% of 10 deaths as a December 1990 (Gladman *et al.*, 2002). supports the present study.,(2018) conducted a survey of Knowledge of their disease among systemic lupus erythematosus patients, the study results reveal that Majority of the patients were aware of their diagnosis (93.7%). However, only 54% had satisfactory knowledge of organ involvement. Regarding the treatment, 55.6% were familiar with the prescribed medications, but less than half of the patients were aware of the minimal duration of treatment (47.6%), side-effects (47.6%) and avoidance of abrupt cessation of steroids (44.4%). Regarding family planning, 81% knew the need for contraception while taking current medications (cyclophosphamide, leflunomide, mycophenolate mofetil). 58.7% knew about the different types of contraception. However, only a minority (25.4%) of the patients were aware that some medications have to be stopped several months before the planned conception. Overall, 41.3% had low knowledge score, and 58.7% had average to high knowledge score (MinnSoe *et al.*, 2018).

## CONCLUSIONS

The study results reveal that majority of the patients with systemic lupus erythematosus had moder-

ate knowledge regarding the risk of cardiovascular health personnel's should regularly remind the patients regarding the cardiovascular risk factors and its preventive and treatment measures Health education about the disease and treatment should be repeatedly given.

## ACKNOWLEDGEMENT

The authors are grateful to the authorities of Saveetha College of Nursing, Saveetha Medical College and Hospital.

## REFERENCES

- Brunner, suddharth's, *et al.* 2014. Textbook of Medical-Surgical Nursing. New Delhi. Wolters Kluwer (P) Ltd.
- Gladman, D. D., Ibañez, D., Urowltz, M. B. 2002. Systemic lupus erythematosus disease activity index 2000. *Journal of Rheumatology*;29;288-91.
- Jensen-Urstad, K. 1999. Carotid Artery Diameter Correlates With Risk Factors for Cardiovascular Disease in a Population of 55-Year-Old Subjects; Stroke.
- Linda 2016. Medical and Surgical Nursing. In *Understanding Medical and Surgical Nursing*, New Delhi. Jaypee publications.
- Manzi, S., Meilahn, E. N., Rairie, J. E., Conte, C. G., Medsger, T. A., Jansen-McWilliams, L., Kuller, L. H. 1997. Age-specific Incidence Rates of Myocardial Infarction and Angina in Women with Systemic Lupus Erythematosus: Comparison with the Framingham Study. *American Journal of Epidemiology*, 145(5):408-415.
- MinnSoe, Y., *et al.* 2018. Knowledge of their own disease among systemic lupus erythematosus patients. Taiwan, 20th Asia Pacific League of Associations for Rheumatology Congress, .
- N, C. S., *et al.* 2013. Textbook of Medical-Surgical Nursing. New Delhi. Avichal publishers.
- Nichols, B. 2008. *Textbook of Medical and Surgical Nursing*. Lippincott William & Wilkins.
- Petri, M., Perez-Gutthann, S., Spence, D., Hochberg, M. C. 1992. Risk factors for coronary artery disease in patients with systemic lupus erythematosus. *The American Journal of Medicine*, 93(5):513-519.
- Urowitz, M. B., Bookman, A. A., Koehler, B. E., Gordon, D. A., Smythe, H. A., Ogryzlo, M. A. 1976. The bimodal mortality pattern of systemic lupus erythematosus. *The American journal of medicine*, 60(2):221-225.