

## Public Awareness of Systemic Lupus Erythematosus in Al-Dammam City in Saudi Arabia

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### ABSTRACT

**Background:** Systemic lupus erythematosus (SLE) is an autoimmune disease where the body's immune system attacks its own healthy tissue. It can affect many organs such as skin, joints, brain, kidneys and other organs.

**Objectives:** to evaluate the knowledge toward Systemic Lupus Erythematosus (SLE) among citizens in Al-Dammam city.

**Methods:** a questionnaire-based quantitative cross-sectional study which focuses on determining the knowledge of Systemic lupus erythematosus in Al-Dammam city.

**Results:** 240 participants filled the surveys, 130 participants (54%) have no idea about SLE. The majority of respondents had no clear idea regarding treatment and complications of the disease. 32% respondents had idea that SLE is more prevalent among females. In fact, this disorder is reported more prevalent in women.

**Conclusion:** this study indicated that the public have low awareness with some misconception regarding the SLE. The awareness campaigns are needed to increase the awareness about SLE which will be helpful to educate the public about its symptoms and methods of treatments.

**Keywords:** autoimmune diseases, Lupus Erythematosus, SLE.

### INTRODUCTION

Systemic lupus erythematosus (SLE), also known simply as lupus, is an autoimmune disease in which the body's immune system mistakenly attacks healthy tissue in many parts of the body. Symptoms vary between people and may be mild to severe. Common symptoms include painful and swollen joints, fever, chest pain, hair loss, mouth ulcers, swollen lymph nodes, feeling tired, and a red rash which is most commonly on the face. Often there are periods of illness, called flares, and periods of remission during which there are few symptoms. Generally, public awareness on SLE is too poor<sup>(1)</sup>. Study was done found that only 34% of the population was aware of the condition among the Portuguese<sup>(2)</sup>. Increases in awareness level of SLE will help in diagnosing this disease earlier and make clear plan to manage this disorder. This study was carried out to assess the awareness level about SLE among the public in Al-Dammam city (Saudi Arabia).

### METHODOLOGY

#### *Study Design*

A quantitative cross-sectional study which focused on determining the knowledge of

SLE awareness and management in Saudi Arabia. Data were collected from public mall (Al-Dammam) using a self-administered questionnaire. Data were collected from 240 participants. **The study was done after approval of ethical board of Al-imam Mohammed Ibn Saud university.**

#### *Study Settings*

The target population was males and females came to the main gate of the public mall. Exclusion criteria are; age less than 20 years old, cannot read Arabic, non-Saudis. Participants were randomly selected and asked to fill out a questionnaire.

#### *Statistical analysis*

A questionnaire written in Arabic was face validated by showing it to professors of researches in Al-Dammam University and modifications were made based on their feedback. A copy of this questionnaire was administered to the participants; along with the questionnaire was a consent form. The questionnaire included closed ended questions and multiple choice questions.

**RESULTS****Demographics**

Two hundred and forty participants completed the questionnaire and were included in the study. Participants were 100% being of Saudi Nationality, and 135 were male while 105 were females.

**Knowledge on SLE**

110 (46%) respondents have previously heard of SLE, while the majority 130 (54%) have never heard of SLE. 125 (52%) of participants didn't know if SLE affects any organ of the body or not and 55 (23%) thought SLE is not associated with any organ involvement. 156 (69%) don't know if the disease is fetal or not while 50 (21%) participants believe that SLE is a fatal disease. (42%) don't know which gender mostly been effected by SLE while (32%) know that SLE mostly

affects females. When we asked about symptoms of SLE, the majority answered "I don't know", 152 (63%), followed by rash then alopecia.

According to treatment and prevention of SLE; 95 (39.5%) responders believe that SLE is a preventable disease while 70 (29%) respondents believe that SLE is a non-preventable disease. 84 (35%) agreed that it is a treatable while 90 (37.5%) don't know if it is treatable or not. . 70 (29%) participants thought SLE is an illness with few complications. 35 (14.5%) participants believed that SLE treated with chemotherapy, 33 (14%) participants believed that SLE is treatable with steroid, 24 (10%) answered multivitamins supplements, 17 (7%) participants answered combination of previous medication while majority of them 131 (52%) answered "I don't know". The survey's results are summarized in Table (1).

**Table 1: Answer of respondents to SLE related questions (n = 240)**

Questions		N	%
Heard of SLE	Yes	110	46
	No	130	54
SLE mostly affects females	Yes	77	32
	No	63	26
	I don't know	100	42
SLE is fatal	Yes	50	21
	No	25	10
	I don't know	165	69
SLE attacks many organs in the body	Yes	60	25
	No	55	23
	I don't know	125	52
	All of the above	45	19
Symptoms of SLE	I don't know	152	63
	Rash	27	11
	Alopecia	16	6.7
	Joint pain	15	6.3
	Fever	13	5.5
	Photosensitivity	10	4
SLE can be prevented	Kidney damage	17	7.5
	Yes	95	39.5
	No	70	29
SLE is a treatable disease	I don't know	75	31.5
	Yes	84	35
	No	66	27.5
SLE is an illness with few complications	I don't know	90	37.5
	Yes	70	29
	No	61	25.5
	I don't know	109	45.5
Treatments of SLE	Chemotherapy	35	14.5
	Steroids	33	14
	multivitamins	24	10
	All of the above	17	7
	I don't know	131	52

## DISCUSSION

SLE is an autoimmune disorder, affects multiple organs and organ systems <sup>(3)</sup>. SLE has complex prognosis due to its nature where it shows multiple symptoms <sup>(4,5)</sup>.

No doubt that having an awareness of lupus is important to detect the disease early and manage its symptoms to reduce its complications. There is huge centers for Disease Control and Prevention in the USA. Campaign in partnership with The American College of Rheumatology which is designed to increase awareness of the signs and symptoms of lupus and empower public who are at-risk for getting lupus <sup>(6)</sup>.

Also, we started this study to assess the public knowledge about SLE which was cross-sectional study among 240 participants in Al-Dammam city (Saudi Arabia) .Participants were selected randomly from public mall in Al-Dammam city.

A significant majority of participants did not know about SLE (54%). However, most of them did not know if it is fetal or not (69%). IN addition, a significant number of respondents (26%) had the misconception that SLE is not affecting mostly females. However, it was reported that SLE was more prevalent among women than men <sup>(7)</sup>. A study done in Tabuk City of Saudi Arabia reported that higher prevalence of SLE among female than male <sup>(8)</sup>. Furthermore, SLE awareness is poor even between medical students in Saudi Arabia. A study was carried out in medical school about major symptoms and reported that they do not have clear idea about complications and treatment of SLE disease <sup>(9, 10)</sup>. Specifically, the study reported prevalence of SLE in Al-Qaseem region of Saudi Arabia, which was similar to Europe <sup>(11)</sup>. However, increase the awareness by doing campaigns have been reported to reduce SLE complications <sup>(12)</sup>.

## CONCLUSION

Results showed poor awareness and some misconception regarding the SLE.

By summary, increases in awareness of SLE among Saudi population by increasing campaigns about the disease, will be helpful to detect and diagnose early cases of SLE patients. Also, it helps to reduce its complications which will improve the quality of patient's life.

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