

Awareness of Systemic Lupus Erythematosus among Students in King Faisal University

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ABSTRACT

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

Objective: to assess knowledge toward Systemic Lupus Erythematosus (SLE) among Students of King Faisal University.

Subjects and Methods: this is a cross-sectional study enrolling 161 students at King Faisal University to fill a survey on SLE awareness. The study targeted students of computer science, engineering, science and education colleges. The data was analyzed using SPSS software version 20.

Results: the study reported that 98 students (60.9%) have no idea about SLE. The majority of respondent did not have clear idea regarding diagnostic, treatment and complications of disease. 55.9% respondent had idea that SLE is more prevalent among men. However, this disorder is reported more prevalent in women.

Conclusion: this cross-sectional survey indicates that the students have low awareness and some misconception regarding the SLE. Therefore, the awareness programs are needed to increase the awareness about SLE, as these campaigns have proved that public awareness might be helpful to manage and control disease and associated complications.

Keywords: autoimmune diseases, SLE, Lupus Erythematosus, King Faisal University

INTRODUCTION

Systemic lupus erythematosus (SLE) is a multi-systemic autoimmune disorder and affects several organs and organ systems. The symptoms are wide ranged and clinical diagnostic of SLE is complex procedure ⁽¹⁾. Awareness on SLE is generally poor. In the period 1970-2001, Moriarty *et al.* ⁽¹⁾ studied the level of awareness among the Portuguese population and found that only 34.2% of the population was aware of the condition. A new research among female students of King Saud University shows low awareness, with a number of misconceptions. Future educational campaigns are needed to increase awareness and rectify misconceptions ⁽²⁾. The increase in awareness level would reduce the time of diagnosis and make it more convenient to manage the disorder. Hence, this study was carried out to assess the awareness level about SLE among the students of King Faisal University, Al-Hasa (Saudi Arabia).

METHODS

This is a cross-sectional study, 161 participant students from computer science college, Engineering college, Science college, and Education college in King Faisal University in Al-Hasa in the year of 2017/2018 were included in the study. The study was approved by the Ethical Committee of the college of medicine. Questionnaires (most of

questionnaire from a previous study taken) ⁽³⁾ were distributed among students during class hours. The questionnaire consists of demographic data of the participants, student's knowledge about SLE towards clinical manifestations, diagnosis, treatment options, prevention and mortality.

Statistical analysis

Data analysis was performed using SPSS version 20 (IBM, Armonk, NY, USA).

The study was done after approval of ethical board of King Faisal university.

RESULTS

Demographics

One hundred and sixty one participant students completed the questionnaire and were included in the study. Participant students were 100% being of Saudi Nationality, and 84 were male. The number and percentage of students from the College of Computer Science, Engineering, Science, and Education were 39 (24.2%), 34 (21.1%), 49 (30.5%) and 39 (24.2%) respectively.

Knowledge on SLE

63 (39.1%) respondents have previously heard or read of SLE, while the majority 98 (60.9%) have never heard or read the term SLE. 66 (41.0%)

students didn't know if SLE affects any organ of the body or not while 62 (38.5%) knew about organ involvement and 33 (38.5%) thought SLE is not associated with any organ involvement. 107 (66.5%) students know that SLE is a fatal disease. 55.9% respondents believed that SLE mostly affects males. When we asked about symptoms of SLE, the majority answered "I don't know", 34 (21.1%) answered all of symptoms in table 2, followed by rash while the rarest symptom reported in this study was kidney damage (2.5%). Regarding diagnosis of SLE; 91(56.5%) of the respondents knew that SLE can be diagnosed with a single test.

Concerning treatment and prevention of SLE; 104 (64.6%) responders believe that SLE is a preventable disease and 106 (65.8%) agreed that it is a treatable one. 93 (57.8%) students thought SLE is an illness with few complications. Out of them 25 believed that SLE is treatable with steroid, 20 responded that SLE is treated with chemotherapy, 17 answered malaria medication, 11 students answered combination of previous medication, 8 (5.0%) respondents answered that SLE is treated with something else, while majority of them 49.7% answered "I don't know". The survey outcome is summarized is represented in Table 1.

Table 1: Answer of respondents to SLE related questions (n = 161)

	Questions	N	%
Heard or read of SLE	Yes	63	39
	No	98	61
SLE affect any organ in the body	Yes	62	39
	No	33	21
	I don't know	66	41
SLE is fatal	Yes	107	67
	No	44	27
	I don't know	10	6.2
SLE mostly affects males	Yes	90	56
	No	59	37
	I don't know	12	7.5
	I don't know	61	38
Symptoms of SLE	All of the above	34	21
	Rash	18	11
	Alopecia	13	8.1
	Joint pain	11	6.8
	Fever	11	6.8
	Photosensitivity	9	5.6
	Kidney damage	4	2.5
	Yes	91	57
SLE can be diagnosed with a single blood test	No	65	40
	I don't know	5	3.1
	Yes	104	65
SLE can be prevented	No	41	26
	I don't know	16	9.9
	Yes	106	66
SLE is a treatable disease	No	49	31
	I don't know	6	3.7
	Yes	93	58
SLE is an illness with few complications	No	58	36
	I don't know	10	6.2
	Chemotherapy	20	12
	Steroids	25	16
	Malaria medications	17	11
	Combination of above medications	11	6.8
Treatments of SLE	Something else	8	5
	I don't know	80	50

DISCUSSION

SLE is an autoimmune disorder, affects multiple organs and organ systems⁽⁴⁾. Prognosis of SLE among a population is complex due to systemic nature of the disease showing multiple symptoms and characteristics^(5,6). Huge gaps have been reported between incidence and prevalence of SLE. Importantly, the early recognition of SLE symptoms is critical to assess and manages pathologic condition of SLE^(6,7).

There is no doubt that building awareness of lupus is essential to improve early diagnosis and treatment of this unpredictable and misunderstood disease, and ensure that people with lupus are aware of the support and resources available to help them manage the disease. Building on this, Centers for Disease Control and Prevention in the USA has funded a *The Be Fierce. Take Control.* Campaign in partnership with The American College of Rheumatology which is designed to raise awareness of the signs and symptoms of lupus and empower young African American and Latino women, who are most at-risk for developing lupus⁽⁸⁾.

Similarly, we took the initiative to carry out this cross-sectional study among 161 students of King Faisal University of Al-Hasa (Saudi Arabia) to evaluate the level of awareness about SLE. Students were selected from science, computer science, engineering and educational colleges not only to extend the sample size but also to grant variation in the population included.

A significant majority of students negatively responded (60.9%) about prior acquaintance of SLE. However, most of them considered it as fatal disease. Furthermore, a significant number of respondents (55.9%) had the misconception that SLE is more prevalent among men. Nevertheless, it was reported that SLE was more prevalent among women, irrespective of ethnic and age groups⁽⁹⁾. A study carried in Tabuk City of Saudi Arabia, also reported higher prevalence of SLE among female than male⁽¹⁰⁾. The awareness level about major symptoms was also low among students. This study also provides evidence that members of this study groups also lack a clear idea about diagnosis, complications and treatment of disease. Similar to our results, a recent cross-sectional study about awareness level of SLE among students of humanity and health category of King Saud University also reported low awareness about SLE⁽¹¹⁾. Specifically, the study reported prevalence of SLE in Al-Qaseem region of Saudi Arabia, which was similar to Europe⁽¹²⁾. However, the awareness campaign has been reported to increase the SLE awareness among Portuguese

patients, and also considerably reduced the diagnosis time of SLE⁽¹³⁾.

CONCLUSION

Participants showed low awareness and some misconception regarding the SLE.

Based on the overall results, it could be concluded that the increase in awareness of SLE among students and Saudi population via increasing campaign and workshops about the disease will be helpful to identify and diagnose early cases of SLE patients, thus help increasing survival rate of these patients and hence decrease morbidity the possible patients of SLE and also in managing it. As a result, the life of quality of patients will be improved.

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