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ORIGINAL ARTICLE

Clinical manifestations and clinical syndromes of Filipino patients with systemic lupus erythematosus

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Abstract The aim of this study was to describe the presenting clinical manifestations and syndromes of Filipino patients on diagnosis of systemic lupus erythematosus (SLE). We performed a retrospective review of medical records of Filipino SLE patients included in the lupus database of the University of Santo Tomas (UST) in Manila, Philippines. All patients fulfilled the American College of Rheumatology criteria for SLE. The following data were recorded: (1) demographic profile, (2) clinical manifestations on SLE diagnosis, and (3) clinical syndromes prior to and during fulfillment of diagnostic criteria for SLE and disease interval from diagnosis of a clinical syndrome to SLE diagnosis. Clinical data of 1,070 patients entered into the UST lupus database as of October 2005 were analyzed. The average age at SLE diagnosis was 28.5 ± 11.5 (range 5–71) years, with 1,025 female and 45 male subjects. The most common presenting manifestation was arthritis (68%), followed by malar rash (49%), renal involvement (47%), photosensitivity (33%), and oral ulcers (33%). The following clinical syndromes were recorded prior to or during SLE diagnosis: nephrotic syndrome (30%), undifferentiated connective tissue disease (UCTD) (22%), autoimmune hemolytic anemia (AIHA) (6%), and idiopathic thrombocytopenic purpura (ITP) (6%). Among these, AIHA preceded the diagnosis of SLE at the longest interval (20.3 ± 30.6, range 1–194 months). In this large database of Filipino patients with SLE, the most common presenting manifestation was arthritis, with renal involvement occurring in almost 50%. Among the clinical syndromes, nephrotic syndrome was the most common, whereas AIHA recorded the longest interval preceding SLE diagnosis, at an average of 20.3 months. Our findings are similar to data from other countries and emphasize the broad range of manifestations of SLE. The findings also reinforce the need to establish and maintain SLE databases to enhance awareness, early diagnosis, and more efficient management of the disease.

Keywords Filipino · Systemic lupus erythematosus

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Introduction

Systemic lupus erythematosus (SLE) is characterized by a wide range of clinical manifestations ranging from cutaneous to major organ involvement. It has been considered the "great mimic", initially presenting with a wide array of non specific manifestations and evolving to other findings that eventually lead to diagnostic certainty [1]. The diversity of SLE presentations has long challenged clinicians. The lupus database of the University of Santo Tomas (UST) in Manila, Philippines, is currently under development, consisting of data of SLE patients diagnosed by rheumatologists from the year 1996 to the present. We did a further review of medical records of Filipino SLE patients included in the lupus database and compared our data with data of SLE patients in other countries.

Patients and methods

A retrospective review of medical records of Filipino SLE patients included in the lupus database was done. All patients fulfilled the American College of Rheumatology

Table 1 Demographic data of Filipino patients with systemic lupus erythematosus (SLE)

Demographics	Statistics
Total number of patients (*n*)	1,070
Females, *n* (%)	1,025 (95.8)
Female:male	23:1
Mean age at SLE diagnosis, years ± standard deviation (range)	28.5 years ± 11.5 (5–71)

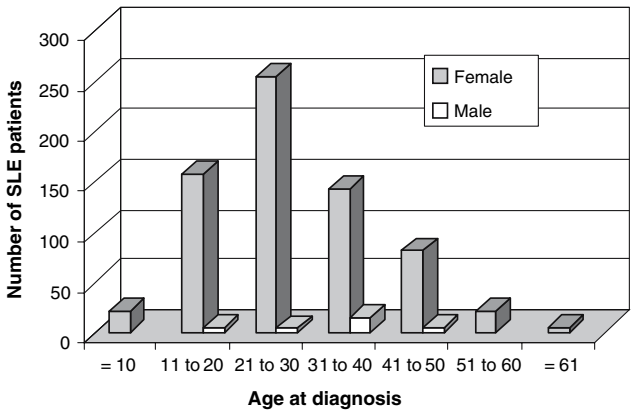

Fig. 1 Age and gender distribution among 1,070 Filipino systemic lupus erythematosus (SLE) patients

(ACR) criteria for SLE [2]. The following data were reviewed: (1) demographic profile, (2) clinical manifestations on SLE diagnosis, and (3) clinical syndromes and respective disease interval preceding and/or at the time of SLE diagnosis.

Results

Clinical data of 1,070 patients entered into the UST lupus database as of October 2005 were analyzed (Table 1). A total of 1,025 female and 45 male subjects were included, with a female to male ratio of 23:1. The average age at SLE diagnosis was 28.5 ± 11.5 (range 5–71) years. Figure 1 shows the combined age and gender distribution of our Filipino SLE patients, with a peak age of onset at 21–30 years among female patients and 31–40 years among male patients. The average interval from the diagnosis of a clinical syndrome (other than SLE) to SLE diagnosis was 13.5 ± 28.8 months.

The most common presenting clinical manifestations were arthropathy in 68%, malar rash in 49%, renal manifestations in 47% and alopecia in 45% (Table 2).

The following clinical syndromes (Table 3) were recorded in patients prior to or on SLE diagnosis: nephrotic syndrome (30%), undifferentiated connective tissue disease (UCTD) (22%), autoimmune hemolytic anemia (AIHA) (6%), and idiopathic thrombocytopenic purpura (ITP) (6%). In terms of interval from the clinical syndrome to a completed SLE diagnosis, AIHA recorded the longest interval preceding SLE diagnosis, at an average of 20.3 months; idiopathic thrombocytopenic purpura recorded the second longest interval prior to SLE diagnosis, at an average of 13.9 months.

Table 2 Presenting clinical manifestations of 1,070 Filipino SLE patients

Clinical manifestations	No. (%)
Malar rash	534 (49)
Discoid rash	283 (26)
Photosensitivity	355 (33)
Oral ulcers	355 (33)
Arthropathy	732 (68)
Serositis	130 (12)
Renal	502 (47)
Neurological	135 (13)
Psychiatric	151 (14)
Leukopenia	41 (4)
Thrombocytopenia	46 (4)
Anemia	311 (29)
Lymphadenopathy	201 (19)
Alopecia	629 (59)
Fever	278 (26)

Table 3 Clinical syndromes preceding or during SLE diagnosis among Filipinos

Syndrome	No. (%)	Interval to SLE diagnosis, months ± SD (range)
Nephrotic syndrome	323 (30)	8.0 ± 28.0 (1–192)
UCTD	238 (22)	8.6 ± 17.8 (1–120)
AIHA	59 (6)	20.3 ± 30.6 (1–194)
ITP	56 (6)	13.9 ± 30.0 (1–75)

SLE systemic lupus erythematosus, *UCTD* undifferentiated connective tissue disease, *AIHA* autoimmune hemolytic anemia, *ITP* idiopathic thrombocytopenic purpura

Discussion

This study is the largest database of Filipino patients with SLE to date. Female to male ratio (22.8:1) in our population was observed to be twice that of the data from other countries [3–14]. We compared the presenting manifestations of our Filipino cohort with that of patients in other countries (Table 4). Note that our data focused on manifestations upon SLE diagnosis, whereas most other studies

Table 4 Frequency (%) of clinical manifestations of systemic lupus erythematosus (SLE) in various populations

Clinical manifestations	Filipinos, $n = 1,070$	Chinese [3], $n = 354$	Hong Kong Chinese [4], $n = 709$	Indian [5], $n = 1366$	Korean [6, 7], $n = 110/466$	Malaysian [8], $n = 539$	Pakistani [9], $n = 196$	Singaporean [10], $n = 472$	Taiwanese [11], $n = 378$	Spanish [12], $n = 307$	Puerto Rican [13], $n = 134$	Caucasian [14], $n = 1,000$
Malar rash	49	51	56	58.5	34.3	61–76	29	45–60	33–74.4	58	71.6	58
Discoid rash	26	–	12	7	5.6	3.1	14	5–10	0.5–15.5	–	10.4	10
Photosensitivity	33	26	35	48	19.1/25.5	26	6	25–31	–	46	76.9	45
Oral ulcers	33	28	11	55	30.9/31.8	24	19.7	13–20	40.2	50	29.9	24
Musculoskeletal	68	73	84	85	74.5/70.4	36–50	38	51–61	35.8–74.8	83	67.2	84
Serositis	12	–	19	22	32.7/27.5	6–12.8	22	7–21	1.1	48	27.6	36
Renal	47	37	50	73	58.2/36.7	50–74	33	18–54	6–60.4	42	29.9	39
Neuropsychiatric	13	–	6	51	25.5/5.8	23	26	4–14	0.8–15.6	15	9.0	–
Hematologic	37	62	77	–	73.6/78.3			46–79	–	58	41.8	–
Leukopenia	4	35	32	–	–	24–39	22	–	40.1	19	18.7	20
Thrombocytopenia	4	25	25		–	16–30	26	–	4.8–17.3			
Lymph/ hepatomegaly	19	–	17		–	–	–	–	–			
Fever	26	44	–		–	–	53	–	4.4–60.2			

Numbers with a dash (–) denote frequency at SLE diagnosis–cumulative frequency; numbers with a slash (/) denote data from two sources

include all manifestations throughout the course of illness. Nonetheless, there appear to be similarities in the frequency of clinical manifestations across countries, such as malar rash, which occurs in approximately 50% of all patient populations. The most common presenting manifestation in our cohort was arthritis (68%), which was similar to that reported in most other countries [3–14]. Renal involvement in our series was 47% on SLE diagnosis, comparable to other Asian populations [10] and most closely approximating the Hong Kong Chinese data. Interestingly, India had the highest reported frequency of kidney disease, at 73%, with a similar trend for neurological involvement among their patients. Hematologic disorders (i.e. thrombocytopenia and leukopenia) and serositis were much less common in our patients compared with other populations. Similarly, Chinese SLE patients in Singapore were found to be less likely to have serositis and hematologic disorders when compared with white SLE patients [15].

Among the clinical syndromes, nephrotic syndrome was the most common, whereas AIHA recorded the longest interval preceding SLE diagnosis, at an average of 20.3 months. The broad range of intervals between syndrome onset to actual SLE diagnosis may reflect the level of SLE awareness or the evolutionary nature of the clinical course of SLE.

The varied frequencies of the presenting and cumulative clinical manifestations of SLE in different countries emphasizes the heterogeneity of the disease worldwide. These wide-ranging presenting manifestations of SLE—some of which are not part of the ACR diagnostic criteria—are nonetheless clinically useful, not only for diagnosis but also in the decision to initiate therapy.

Conclusion

In this large database of Filipino patients with SLE, the most common presenting manifestation was arthritis, with renal involvement occurring in almost half of patients on SLE diagnosis. Among the clinical syndromes, nephrotic syndrome was the most common, whereas AIHA recorded the longest interval preceding SLE diagnosis, at an average of 20.3 months. Our findings are similar to data from other countries and emphasize the broad range of manifestations of SLE. It also reinforces the need to establish and maintain SLE databases to enhance awareness, early diagnosis, and more efficient management of the disease.

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