

Median Survival Rate In Patients With Systemic Lupus Erythematosus Relative To Some Demographic Varieties

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Abstract

Introduction: Systemic lupus erythematosus (SLE) has a worldwide distribution's and is a chronic autoimmune inflammatory disease with unknown etiology that may affect many organs . Clinical course of this disease is characterized by periods of remission of chronic and acute exacerbation.

Methods: A prospective analytic study was conducted in regard to the median survival rate in 189 reference cases of SLE in both dermatology and rheumatology centers, of two general hospitals in the Kerman university of medical sciences of Iran.

Results: The median survival age in our patients was 9.2 ± 0.89 years. There was a significant difference between the median survival ages in females (10 ± 0.12) in compare to males (6 ± 0.22). First beginning symptom and sign presentation, beginning of age, and therapeutic plan modalities were evaluated and analyzed by determination survival rates.

Conclusion: Male gender, early beginning of disease, and combined therapy in compare to female, late beginning of disease and corticosteroid therapy alone were with lower median survival rate.

INTRODUCTION

Systemic lupus erythematosus (SLE) is a complex disease with varying mechanism of disease production^(1,2,3,4,5). SLE is a heterogeneous and autoimmune inflammatory disease of unknown etiology that may affect the skin, joints, kidneys, lungs, nervous system, serous membranes, and other organs of the body ^(6,7,8,9,10,11). Women are characteristically affected more than men in all forms of SLE^(4,12). The clinical course of SLE is characterized by periods of remission and chronic course and acute exacerbation ^(1,12). Women with lupus erythematosus have a more survival advantage over the men as judged by multivariate analysis. Central nervous system and kidney involvement are most important role on hazardous and survival rates of these patients ^(13,14,15,16,17). During the past several decades the mortality associated with lupus erythematosus has decreased dramatically. This may be due to a multitude of factors, some of which include better and earlier therapy for LE, availability of newer techniques and drugs to treat the complications of SLE or complications of the therapy for SLE ⁽¹⁸⁾.

The prognosis of SLE is adversely affected by renal involvement as the first cause of death,. CNS involvement is the second cause of death ⁽¹²⁾. Seizures almost invariably occur during an active phase of the disease and are frequently accompanied by other neuro-psychiatric symptoms and signs^(18,19). By the time of death, 30 - 53 % of patients with CNS lupus experience one or more seizures ^(17,20). There are many differences between Iranian SLE patients and other countries containing clinical manifestations, frequency, severity of organ or system involvement, and cause of death ⁽¹⁷⁾. An analytic retrospective study has done to determination mean survival rate in patients with SLE and its relation to some demographic varieties.

MATERIALS AND METHODS

Between 1990 and 2002, 189 SLE patients were entered prospectively in this study 171 patients were females and 18 cases were males. The data of every patient were entered to mother sheet. Patient inventory contained ages, sex, age, group, and therapeutic plan, with or without kidney

involvement. The mean survival rate was determined for any of all data varieties. The patients were divided in two groups: prominently and none prominently renal involvement. The age of begin were other independent variety that has been divided to four groups: first group lower than 15 years, double , triple and quadruple of it (15-30, 30-45 and 45-60). The SPSS software was used for statistical calculation. Determination median survival of each variety subgroup was done by Kaplan Meier table. The covariance of the survival functions for each level of variables was also evaluated by using Log-Rank test, when combined effect of confounding variables were interacted, the mean survival rates was not determined. All cases with clinical diagnosis of SLE who has more than four criterions of American rheumatism association included in this study and the cases who had not four criterions and those with incomplete inventories or with controversial death were excluded of this study.

RESULTS

Among 189 cases 171 patients (90.5%) were females and 9.5% were males. Overall median survival rates were obtained as 9.2 ± 0.90 (11 ± 0.12 in females and 6 ± 0.23 in males). The prevalence rate of skin lesion was 73%, but skin lesions as the first presentation of SLE were seen in 41.3%, and skin lesions in 31.7% were in combination with arthritis, or else. Arthritis and arthropathy were seen in 27% as the first presentation of SLE, (63.1% in women and 16.6% in men). Median survival rates in cases with first skin presentation in compare to other cases which arthropathy and other findings were as 9 ± 0.16 10 ± 0.19 and 9.2 ± 0.10 respectively. Median survival rates in cases with severe renal involvement in compare to mild renal involvement were as 8.5 ± 0.10 and 10 ± 0.29 respectively. Therapeutic modalities of our case divided to 3 groups of oral corticosteroid alone .Corticosteroid plus anticoagulant agents and miscellaneous drug therapy and median survival between this 3 groups were 9.5 ± 0.20 , >12 and 8.5 ± 0.24 respectively. Only 28% of our patients had median survival rate more than 12 years after confirming of SLE. Other findings and complete results are seen in tables I & II.

DISCUSSION

The mean survival years of our patients in this study are prominently lower than the results of other studies of another countries (₁₇).Although during the past several decades the mortality associated with lupus erythematosus has decreased dramatically(₁₅). The survival rates 10 years after diagnosis

in Chiloan patients from Chili (North American country) was 79% (₁₆) but in our study it was 41.5% which show poorer prognosis. This may be due to multitude factors in compare to other countries some of which include better follow up and earlier diagnosis of SLE, availability of techniques and new drugs to treatment of complications of SLE or basic drugs (₅). The prognosis and mean survival rates differs in those with more and kind of organ involvement .Estes and Christian found a 4-year survival rate of 76.9% for SLE patients in general; compared to 55% for those suffering from CNS involvement (₁₂). In our study the following results was elicited: Sex ratio was 9.5 in woman to 1 in men. The mean survival ages were 9.2 years which is lower than other countries .The prognosis was poor in men (<6 years) than women (<10 years) which means that the disease has earlier mortality in males than females. The cases with first presentation of skin disease were with poor prognosis than those with first other presentation contain arthritis, systemic disease, etc (not skin finding) (9 to 10 & 9.2 years) Table I & II.

Figure 1

Table 1: Survival analysis and determination of mean survival in SLE patients in relation to, sexuality, kind therapy, first appearance and severity of renal involvement and overall during the past 12 years following up in Kerman

Median Survival Sum/variables		0 - 2 Years	2 - 4 Years	4 - 6 Years	6 - 8 Years	8 - 10 Years	10 - 12 Years	Media ±SD
Overall Survival	Survival rates	90.5%	83.6%	68.3%	61.8%	41.7%	28.6%	9.20 ±0.90
Sex Survival	Males	60%	50.0%	33.3%	33.3%	16.7%	0%	6±0.22
	Females	94.7%	89.8%	73.4%	67.9%	50.0%	37.5%	11±0.12
Kind Therapy Survival	Corticosteroid	100%	93.3%	72.7%	70.0%	42.9%	33.3%	9.5±0.20
	Corticosteroid+ anticoagulant	93.3%	93.3%	75.0%	66.7%	50.0%	50.0%	>12 years
	Other therapy	83.3%	72.0%	61.1%	53.3%	36.4%	11.1%	8.5±0.2 4
Pattern of presentation	Skin findings	92.3%	80.8%	73.7%	61.5%	36.4%	22.2%	9 ± 0.16 years
	Arthropathy	95.0%	93.8%	61.5%	61.5%	50.0%	28.6%	10 ± 0.19 years
	Other findings	82.4%	76.9%	76.9%	60.5%	40.0%	40.0%	9.2 0.10 years
Severe renal Failure index	Yes	85.4%	76.3%	60.0%	53.8%	40.0%	27.8%	8.5±0.10 years
	No	100%	100%	90.9%	87.5%	50.0%	33.3%	10±0.29 years

Figure 2

Table 2: Overall survival analysis and median survival of patients with SLE during the past 12 years following up in Kerman

Survival years	0-2 years	2-4 years	4-6 Years	6-8 Years	8-10 Years	10-12 Years	Median survival years±SD
Data							
Overall Survival	90.5%	83.6%	68.3%	61.8%	41.7%	28.6%	9..20 ±0..90

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