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PREVALENCE OF MUSCULOSKELETAL MANIFESTATIONS IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS PRESENTIG AT A TERTIARY CARE TEACHING HOSPITAL OF VALLEY OF KASHMIR

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ABSTRACT

Background: Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease caused by an aberrant immune response. ***Aims & Objectives:*** To study the prevalence of musculoskeletal manifestations in patients with Systemic Lupus Erythematosus presenting at a Tertiary Care Teaching Hospital. ***Material and Methods:*** A review of records of SLE patients admitted or evaluated in OPD from March 2010 to June 2017 was carried out. ***Results:*** A total of two hundred and sixty nine SLE patients were enrolled for the analysis. Among 269 SLE patients, majority of the patients had musculoskeletal manifestations yielding a prevalence of 82.9%.

KEYWORDS: Systemic lupus erythematosus, Prevalence, Musculoskeletal manifestations.

INTRODUCTION

Although the term "lupus erythematosus" was introduced by 19th-century physicians to describe skin lesions, it took almost 100 years to realize that the disease is systemic and spares no organ and that it is caused by an aberrant autoimmune response.[1]

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease of unknown etiology characterized by the production of non-organ specific auto-antibodies directed to nuclear, cytoplasmic and cell surface antigens, which may lead to a wide range of tissue injuries.[2]

The involvement of vital organs and tissues such as the brain, blood, and the kidney in most patients, the vast majority of whom are women of child bearing age. The prevalence ranges from 20 to 150 cases per 100,000 population, with the highest prevalence reported in Brazil, and appears to be increasing as the disease is recognized more readily and survival increases. In the United States, people of African, Hispanic, or Asian ancestry, as compared with those of other racial or ethnic groups, tend to have an increased prevalence of SLE and greater involvement of vital organs. The 10-year survival rate is about 70%.[3]

The onset of systemic lupus erythematosus (SLE) is often marked by seemingly innocent musculoskeletal symptoms, and these may dominate its early course. Unless they are recognized, patients may go on for a long time with some rheumatic diagnosis until an acute febrile episode or visceral or cutaneous symptoms afford clues to the correct diagnosis. Joint symptoms, ranging from intermittent arthralgias to acute polyarthritis, occur in about 90% of patients and may precede other manifestations by years. Most lupus polyarthritis is nondestructive and nondeforming. However, in long-standing disease, deformities without bone erosions may develop (eg, the metacarpophalangeal and interphalangeal joints may rarely develop reducible ulnar drift or swan-neck deformities without bony or cartilaginous erosions [Jaccoud arthritis]). As in many other chronic diseases, the prevalence of fibromyalgia is increased, which may cause diagnostic confusion in patients with periarticular and generalized pain and fatigue.[4]

The present study was conducted to understand prevalence of musculoskeletal manifestations of systemic lupus erythematosus presenting to a tertiary care teaching hospital.

OBJECTIVES

To study the prevalence of musculoskeletal manifestations in patients with Systemic Lupus Erythematosus presenting at a Tertiary Care Teaching Hospital.

MATERIAL AND METHODS

Study Design: Review of records(both retrospective and prospective).

Study Duration: Seven Years, 2010-2017

Study Setting: A hospital based study: Rheumatology Division and Medical record section, SKIMS

Sample size: All the patients admitted or evaluated during the study period.

Criteria for classification of the SLE: American College of Rheumatology (ACR) classification criteria revised in 1982 updated in 1997 and the Systemic Lupus Erythematosus Collaborating Clinic (SLICC) criteria.

Statistical Analysis: The data was entered in Ms excel sheets and was analysed by SPSS 23.0.The data was represented in the form of graphs and tables.

RESULTS

A total of 269 patients were studied. Data of patients with systemic lupus erythematosus patients over a period of seven years from March 2010 to July 2017 was collected.

Prevalence

Over all 233 SLE patients out of 269 which constituted 82.9% of all SLE study group had musculoskeletal manifestations. (Table 1)

Table 1: Prevalence of musculoskeletal manifestations in SLE patients.

	Frequency	Percentage
Musculoskeletal manifestations	233	82.9%
Total Cases	269	100.00
Prevalence	82.9%	

Clinical Features

Early morning stiffness was present in 81 patients which constituted 67.2% of patients. 165 (61.3%) patients had arthritis, 42 (15.6%) had myalgias, 31 (11.5%) had arthalgias, 32 (11.9%) had muscle weakness. Avascular necrosis was present in 3 (1.1%) of patients.(Table 2,Figure 1)

Table 2: Musculoskeletal System Manifestations In Study Patients(n=233).

Musculoskeletal manifestations	Number of patients (n)	Percentage (%)
Early Morning Stiffness	181	67.2
Muscle Weakness	32	11.9
Myalgias	42	15.6
Arthralgias	31	11.5
Arthritis	165	61.3
Avascular necrosis	3	1.1

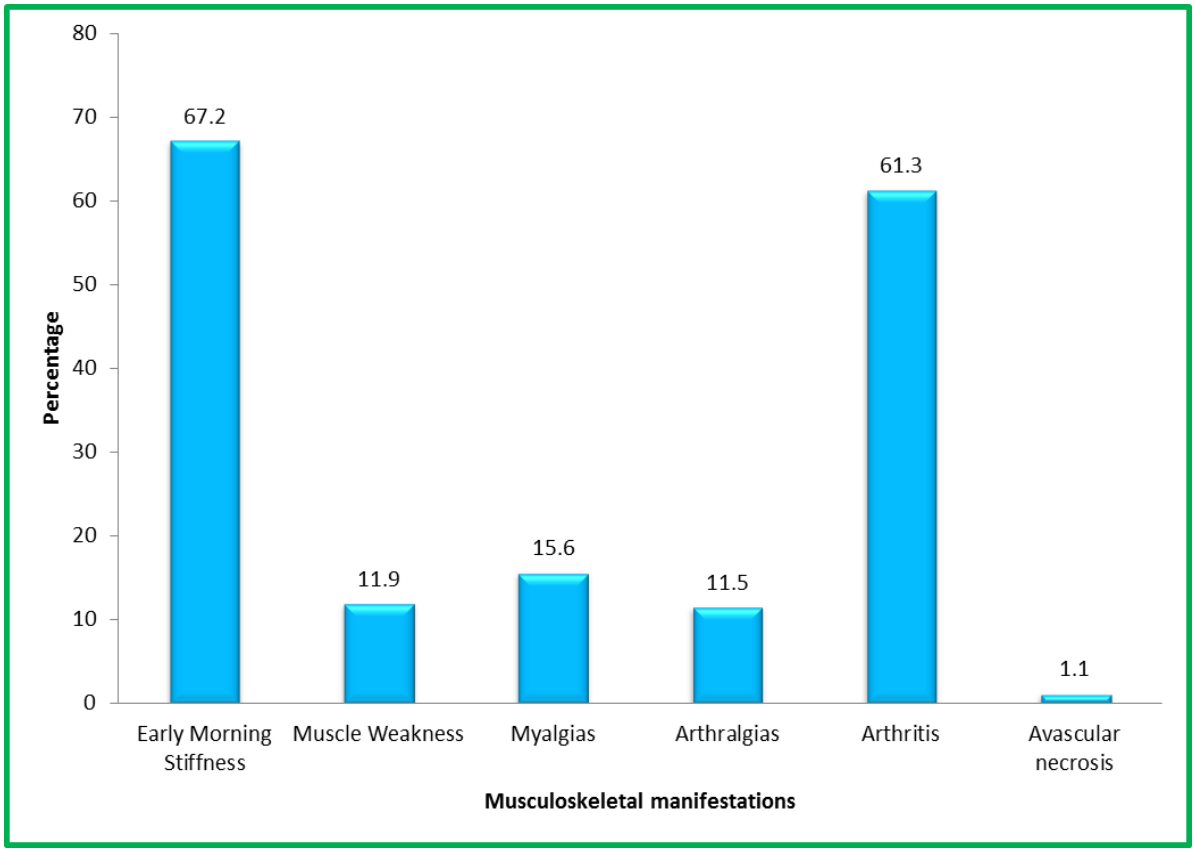

Figure 1: Musculoskeletal manifestations.

DISCUSSION

Systemic lupus erythematosus is protean in its manifestations and follows a relapsing and remitting course. And the various characteristic musculoskeletal manifestations of SLE are summarized below:

Musculoskeletal manifestations of SLE patients

Musculoskeletal Manifestations	Percentage
Prevalence [2]	**84.2**
Arthralgia	79.5
Arthritis	54.8
Myalgia	15.8

In our study prevalence of muscular skeletal manifestations was found to 82.9%.Similiar to the findings of Moez Jallouli et al (84.2%) and with other literature.

In our study, over all musculoskeletal manifestations in our 269 SLE patients were present in 233 (82.9%). Arthritis and arthralgias combined were present in 72.8%, myalgias 15.6%, and avascular necrosis 1.1% of patients. The results were in line with that found by Malaviya *et al*[5] (66%), Paudyal BP et al[6] (69%), African studies by Moez Jallouli et al[2] (54.8%), Monia Smiti Khanfir et al[7] (55.9%) and in western studies conducted by Estes et al[8] (95%) in USA and Dubois et al[9] (91.9%).

Grigor R et al[10] (98%) in London found that articular manifestations are more as compared to our study. This may be due the different genetic make up, racial and ethnic differences and different environmental exposure.

SUMMARY

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease of unknown etiology characterized by the production of non organ- specific auto-antibodies directed to nuclear, cytoplasmic and cell surface antigens, which may lead to a wide range of tissue injuries. A total of two hundred and sixty nine SLE patients were enrolled for the analysis. Among 269 SLE patients, majority of the patients had musculoskeletal manifestations yielding a prevalence of 82.9%.Early morning stiffness was present in 81 patients which constituted 67.2% of patients. 165 (61.3%) patients had arthritis, 42 (15.6%) had myalgias, 31 (11.5%) had arthalgias, 32 (11.9%) had muscle weakness. Avascular necrosis was present in 3 (1.1%) of patients.

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