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PROPORTION OF HEMATOLOGICAL MANIFESTATIONS AMONG PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS ATTENDING A TERTIARY CARE CENTER

General Medicine

Dr. Mohammed Bilal Hussain Postgraduate, Department of General Medicine, Kanachur Institute of Medical Sciences, Mangalore

Dr. Narasimha Shastry Assistant Professor, Department of General Medicine, Kanachur Institute of Medical Sciences, Mangalore

Dr. Devadas Rai Professor and Head of Department, General Medicine, Kanachur Institute of Medical Sciences, Mangalore

ABSTRACT

Systemic lupus erythematosus (SLE) is a multisystem autoimmune disease, primarily affecting women of childbearing age. Haematological abnormalities are common in SLE, yet their role in disease progression is not well-defined. This cross-sectional study aimed to determine the prevalence and severity of these abnormalities in 120 SLE patients at a tertiary care center in India, from April to December 2022. Anaemia was the most frequent finding (72.5%), with anaemia of chronic disease being the most common type. Autoimmune haemolytic anaemia (AIHA) was present in 5-10% of patients and responded well to corticosteroids. Neutropenia, thrombocytopenia, and lymphopenia were also observed. Antiphospholipid antibodies, found in 19 patients, were linked to hypercoagulable states. Risk factors included long-term steroid use, positive family history, and follow-up loss. Early recognition and management of these abnormalities are crucial for improving patient outcomes.

KEYWORDS

Systemic Lupus Erythematosus, Hematologic Diseases, Anemia, Hemolytic, Autoimmune, Neutropenia, and Thrombocytopenia

INTRODUCTION

Systemic lupus erythematosus is a multisystemic autoimmune disease that predominately affects women of child bearing age.

Over 80 percent of cases occur in women during their childbearing years

Haematological abnormalities are frequently encountered in patients with SLE and are part of American Rheumatic Association criteria for classifying the disease. But there is relative Paucity of information on the significance of abnormalities in the course of the condition.

Anaemia is the most common hematologic abnormality seen in SLE.

Autoimmune haemolytic anaemia occurs in approximately 5-10% of SLE patients and it responds well to corticosteroid treatment. Neutropenia is relatively common and has been related to increased risk of infection in patients with SLE.

Although thrombocytopenia caused by peripheral destruction is common in SLE (20-40%), severe thrombocytopenia is comparatively rare (~5%). It is now recognised that lymphopenia is one of the most common hematologic findings in SLE.

Anti phospholipid antibodies frequently found in SLE are a family of auto antibodies that exhibit a broad range of target specificities and activities. The term “antiphospholipid antibody syndrome” denotes clinical association between antiphospholipid antibodies and a syndrome of hypercoagulability.

Though the haematological abnormalities encountered in SLE have been well documented in literature, there are very few studies done in India addressing this issue, hence this study is undertaken to establish the frequency and severity of hematologic abnormalities in patients of SLE in our geographic area.

Haematological manifestations are very common in SLE, and it may be the only manifestation of the disease at presentation. Among all haematological manifestations, anaemia is the commonest and correctable one.

Many manifestations are unrecognised sometimes, and results in complications and poor outcome. This is to estimate these manifestations and its proportion to help in early recognition and treatment so that to improve the quality of life of SLE patients

Objectives

Primary Objective - To estimate the proportion of haematological manifestations among patients with SLE attending a tertiary care center.

Secondary Objective - To find the risk factors associated with the development of haematological manifestations among patients with SLE attending a tertiary care center

METHODOLOGY

Study Design : Hospital based cross sectional study

Study Setting : Department of general medicine, Kanachur institute of medical sciences, Mangalore.

Study Population : All SLE patients coming to department of General Medicine and Rheumatology OPD of Kanachur institute of medical Sciences.

Study Period : April 2022 to December 2022

Sample Size : 120

Inclusion Criteria

1. SLE Diagnosed by SLICC criteria
2. Age > 18 years
3. Both in patients and out Patients

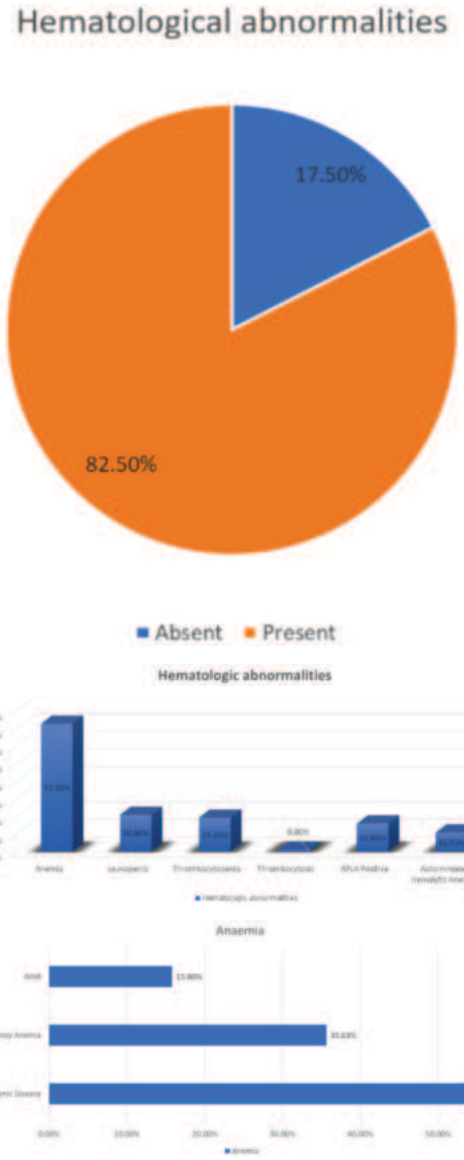
Exclusion Criteria

1. Those who are not willing to give consent.
2. Patients who were admitted with terminal illness attributable to other causes.
3. Patients with haematological abnormality attributable to other causes.

RESULTS

Among 120 participants majority(97.5%) were females. Mean age of study participants was 35.7 ± 8.8 years, with minimum age of 20 years and maximum age of 56 years. Hypothyroidism is most common past medical illness elicited, among our patients. 51 patients (42.5%) were under treatment for hypothyroidism. Prevalence of hypertension was 16%, diabetes mellitus was 22.5% and dyslipidaemia was 22.3%. Among 117 female patients, history of abortion was noted in 39 patients (32.5%). APLA was positive in 19 patients. 20% had positive family history. Pallor was noticed in 29.2% (n=35) of patients but anaemia was present among 87 patients. All patients were on steroids (100%). The commonly used steroid was prednisolone. It was followed by Azathioprine (50.8%) and HCQ (23.3%), MMF (20%) Least used drug was methotrexate (5.8%), none of the patients received biologics. Mean duration of treatment taken was 6.5 years with minimum of 1 year and maximum of 28 years.

Follow up losses were 15 out of 120



CONCLUSION

SLE is a worldwide chronic autoimmune disease which maty affect every organ and tissue. Haematological abnormalities are common findings in patients with SLE. It is important to distinguish haematological abnormalities as either manifestation of SLE, consequence of SLE treatment or as a part of another blood dyscrasia. Anaemia is found in about 72.5% of our patients, with anaemia of chronic disease being the most common form. Impaired erythropoietin response and presence of antibodies against erythropoietin may contribute to this type of anaemia. This was followed by iron deficiency anaemia and then AIHA. Autoimmune haemolytic anaemia is usually associated with anticardiolipin antibodies, thrombosis, thrombocytopenia and renal disease, often in context of secondary antiphospholipid syndrome. Mild neutropenia is also a common finding and requires no therapy. Severe neutropenia needs to be treated. First line therapy for haematological abnormalities remains glucocorticoids. Through our review glucocorticoids produce response initially in majority of patients, but sustained response to therapy is unlikely. Risk factors associated with development of haematological manifestations includes a positive family history, long term steroid use and those who had lost their proper follow up

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