

## Research Article

Diakité F, et al. Acad Orthop Res Rheum 2: 111.

DOI: 10.29021/2688-9560.100011

# Visceral Complications of Systemic Lupus Erythematosus Isolated or Not in the Rheumatology Service of the Point G Hospital

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**Citation:** Diakité F, Pamanta IS, Kodio B, Touré S, Sangaré F, et al. (2018) Visceral Complications of Systemic Lupus Erythematosus Isolated or Not in the Rheumatology Service of the Point G Hospital. *Acad Orthop Res Rheum* 2: 111. DOI: 10.29021/2688-9560.100011

**Received Date:** 29 January, 2018; **Accepted Date:** 12 February, 2018; **Published Date:** 21 February, 2018

## Abstract

**Introduction:** The systemic lupus erythematosus is a complex and multifactorial genetic disease with a very variable clinical manifestation. This disease can be associated with another major connective thus realizing an associated connective or an overlap syndrome.

**Objective:** To determine the frequency of visceral complications of systemic lupus erythematosus and its association with other connectivity.

**Methods:** We studied retrospectively over 5 years on patient records followed in the Rheumatology Department of the Point G Hospital in Bamako, Mali for connective. Thus, all patients diagnostic with a systemic lupus erythematosus according to the American College of Rheumatology criteria and that with a systemic lupus erythematosus association with other connective as defined by the corresponding diagnostic criteria were involved in the study.

**Results:** A total 90 patients were registered with 50 cases of the isolated systemic lupus erythematosus and 40 cases of the systemic lupus erythematosus associated with other connective (24 cases of rhupus, 12 cases of association with systemic sclerosis, 2 cases of association with polymyositis, 1 case with dermatopolymyositis and 1 case with Sjorgen syndrome). In both groups, a female predominance was observed: 80% (40 cases) in the isolated systemic lupus erythematosus and 85% (34 women) in systemic lupus erythematosus association with other connectivity. The mean age of the patients was  $43.42 \pm 17.11$  years and  $38.73 \pm 15.43$  years in the isolated systemic lupus erythematosus and in the association with other connective respectively. At least a visceral complication was observed for 27.5% of patients having a systemic lupus erythematosus association (11 cases) and 34% of the patients having the isolated systemic lupus erythematosus (17 cases). The increase in the frequency of visceral complications in the group of the isolated systemic lupus erythematosus was not statistically significant. The two groups were characterized by a higher number of renal complications (14 cases in the isolated systemic lupus erythematosus and 5 cases in the event of association with other connective).

**Conclusion:** Visceral complications are a little more observed in the case of isolated systemic lupus erythematosus compared to the systemic lupus erythematosus association the other connective without significant difference.

**Keywords:** Associated Connective; Overlap Syndrome; Systemic Lupus Erythematosus; Visceral Complications

## Introduction

The Systemic Erythematosus Lupus (SLE) is a complex

and multifactorial, genetic disease characterized by very protean clinical manifestations [1]. Interactions between self-antigens, cells presenters of antigens, B and T cells on a genetic ground and in a particular environment lead to antibody production. These auto antibodies through the formation of complex immunes that are at

the origin of tissue damage. The tissue stock of complex immunes the activation of the complement, the secretion of cytokines and cell cytotoxicity induce deleterious tissue inflammation of the body [2]. The long-term evolution can lead to the progressive visceral damage appearance. The prognosis is dependent on the nature of visceral lesions, especially renal and vascular damage. The SLE can be associated with another major connectivity thus leading to an overlap syndrome or an associated connective. All major connectivity's have been described as associated with lupus.

The objective of this study was to determine the frequency of visceral complications of systemic lupus erythematosus and association of the systemic lupus erythematosus with other connectivity.

## Methods

### Patients

A retrospective and monocentric investigation was conducted on 90 patients monitored in the Department of Rheumatology of the Point G Hospital in Bamako, Mali. The patients were divided into two groups. The first group included 50 patients with the isolated SLE. The second group is constituted of 40 patients associated with another connective. The survey covering a period of 5 years from January 1, 2010 to December 1, 2015 included any patient with a diagnosis of the SLE according to the American College of Rheumatology criteria and the SLE association with other connectivity as defined by the corresponding diagnostic [3] (Table 1).

Association	Number	Percentage (%)
Rhupus	24	60
SLE + systemicsclerosis	12	30
SLE +Polymyositis	2	5
SLE + Dermatomyositis	1	2.5
SLE +Sjogren Syndrome	1	2.5
SLE : Systematic Lupus Erythematosus		

**Table 1:** Systematic lupus erythematosus association types.

### Data collection

All the relevant information was collected retrospectively from medical records of patients. The following parameters were collected : socio-demographics aspects (age, sex), clinics (articular, extra articular, visceral damage), biological auto-immune and imagery.

### Statistical analysis

The software SPSS 16.00 was used for statistical analysis. The quantitative variables were described in terms of numbers,

mean and standard deviations. The comparison was made using the Chi2 test or the Fisher exact test when the numbers were lower than 5. The degree of statistical significance was defined for a threshold of 5% ( $p < 0,05$ ).

## Results

The analysis was carried on 90 patients composed of 40 cases of SLE isolated and 50 cases of associated SLE. The most frequent associations were the rhupus in 24 monitored cases followed by of the SLE with systemic sclerosis in 12 cases. The table 1 shows the type of association. In both groups a female predominance was observed in 40 cases representing 80% in the isolated SLE and 34 women in SLE association with other connectivity reflecting 85%. The mean  $\pm$  SD age of the patients was respectively  $43.42 \pm 17.11$  years and  $38.73 \pm 15.43$  years in the isolated SLE and in the association. At least a visceral complication was observed for 34% (17 cases) of the patients having the isolated SLE and 27.5% (11cases) of patients having a SLE association (Table 2).

Characteristics	Isolated SLE	Associated SLE
Female	40 (80%)	34 (85%)
Mean $\pm$ SD age in years	$43.42 \pm 17.11$	$38.73 \pm 15.43$
Visceral complications n (%)	17 (34%)	11 (27,5 %)
Lupus nephritis	14	5
Neurological complication	4	1
Cardiovascular complication	3	2
Lung complication	2	2
Digestive complication	2	2

n = number of cases of visceral complication

**Table 2:** Characteristics of patients in the two groups.

The increase in the frequency of visceral complications in the group of the isolated SLE was not statistically significant. The two groups were characterized by a high number of renal complications (14 cases in the isolated SLE and 5 cases in the event of association with other connectivity). One multi-visceral complication has been reported in 2 patients in the SLE isolated and two simultaneous affected organs with two patients of both groups. The complications were not statistically more frequent in the age group (17-40 years) and among women in both groups.

## Discussion

We determined the frequency of the visceral complications in the SLE isolated and associated with other connectivity. This retrospective study on 90 cases showed that 34% of the SLE isolated and 27.5% of the SLE associated visceral complications. The findings indicated that the kidneys were the organs the most affected in the both groups. These findings are supported by other studies. Thus, studies have shown that kidney is a classic and severe complication of the SLE. During the evolution of disease, 30 to 60% of lupus patients will present continuous lupus nephritis

[4,5]. No Caucasian subjects are more exposed to the risk of continuous lupus nephritis including particularly young men (less than 33 years at diagnosis) [6]. The role of genetic factors has been suggested but also cultural factors and socio-economic (late consultations, adherence, geographical accessibility to specialized care, low income) as well. A non-statistically significant increase was found in the frequency of visceral complications in patients with the SLE isolated (34% against 27.5%). In both groups, the visceral complication was not significantly more frequent in the age group 17-40 years and for women. The SLE is a polymorphic clinical manifestations that preferentially affects young women in age to procreate (20-40 years) [7,8]. Some limitations of this analysis should be considered not only the small size of the population studied but also its monocentric nature. Patients with visceral complications are taken care in other services have not been mentioned in the study. Patients with visceral complications are taken care in other services have not been mentioned in the study. Several works are devoted to the SLE isolated but the associated form with other connectives was little reported. To our knowledge we did not find studies comparing the visceral complications in the two groups.

## Conclusion

In our study, the frequency of visceral complications is a little higher in the course of the SLE isolated compared to the SLE association with other connectivity (34% versus 27.5%) but not significantly different. The kidney was the most frequently affected in both groups. The multivisceral complication was observed in the group of patients with the SLE isolated.

- **Statement of interest links:**

The authors do not have any link of interest.

- **Acknowledgments:**

This work was supported by the Department of Rheumatology and General Directorate of the Point G hospital.

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