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BRIEF REPORT

Systemic lupus erythematosus (SLE) at the Kenyatta National Hospital

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Abstract Systemic lupus erythematosus (SLE) is a complex disease with varied clinical presentation and autoantibody production. It has previously been reported as rare in Black Africans. We established a Rheumatology clinic at the Kenyatta National Hospital in April 2010, and a 1 year audit of this clinic was carried out in September 2011. This is a report of this audit of patients who met the American College of Rheumatology (ACR) criteria for SLE. Thirteen patients met the ACR criteria; their mean age was 34 years, and they were all female. The commonest manifestations were malar rash and arthritis in 69.2 %. Antinuclear antibody was present in 79.6 %, and anti-dsDNA was present in 38.5 %. None of them had human immunodeficiency virus infection; 30 % had other comorbidities (hypertension, diabetes, and renal failure). Thirty percent also had an infection during this period. All these 13 were on prednisolone and 92 % of them were on hydroxychloroquine. There was no reported death during the study period. This confirms the presence of SLE in patients in Kenya who meet the ACR criteria.

Keywords Characteristics of SLE in Kenyans · SLE at Kenyatta National Hospital · SLE in Africans · SLE in Kenya

Background

Systemic lupus erythematosus (SLE) is a heterogeneous autoimmune disorder with production of a variety of autoantibodies, and patients present with a wide range of symptoms due to multiorgan involvement by the disease process [1]. It is reported to be rare in black Africans [2].Several reports of SLE have been made in African countries including South Africa [3], Tunisia [4], and Zimbabwe [5].

The rheumatology clinic at the Kenyatta National Hospital Nairobi, Kenya, was set up in April 2010. This is a report of an audit of patients seen at the rheumatology clinic in its inception year who met the American College of Rheumatology criteria for SLE [6, 7].

Objective

The objective of the study was to describe the patients seen in the inception year period of this rheumatology clinic with SLE who meet the American College of Rheumatology (ACR) criteria [6, 7].

Specific objectives

1. To determine the number of patients with a diagnosis of SLE who meet the ACR criteria.
2. To describe the various manifestations in these patients

Methods

I conducted a 1-year retrospective audit of patients seen at the rheumatology clinic. Patient's files were retrieved by manual perusal of the records and by use of the international coding of diseases (ICD) 20. Data were extracted using a standardized data collection form, and patient's demographics, referral sites, time between referral and index visit to the rheumatology clinic, laboratory tests carried out, and treatment offered were collected. Data were entered into SPSS version 17. The ACR criterion for SLE was applied.

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Table 1 Manifestations of SLE

Manifestation	Number	Percentage
Malar rash	9	69.2
Discoid rash	3	23.1
Photosensitivity	6	46.2
Oral ulcers	3	23.1
Arthritis	9	69.2
Serositis	2	15.4
Renal disorder	8	61.5
Neurologic	3	23.1
Hematologic	5	38.5
Immunologic	5	38.5
Antinuclear antibodies	10	76.9

Results

Three and hundred and ninety four patients were seen in the inception year of the Rheumatology clinic from April 2010. Twenty four of these patients were on treatment for SLE; 13 fulfilled the ACR criteria whereas 11 had "incomplete lupus". The 13 comprised 3 % of patients seen in this period. They had a mean age of 34 years (range 12–52). All were female. Seventy-six percent were referred from units within the hospital, and 76 % were hospitalized during the audit period. Thirty percent (4/13) had an infection, urinary tract infection, gastroenteritis, and cellulitis. Thirty percent (4/13) had comorbidities that included hypertension, diabetes, and renal failure. None of these patients had HIV infection.

These 13 patients were all on prednisone. Ninety-two percent were on hydroxychloroquine, 76 % on NSAIDS, 46 % on cyclophosphamide, 38 % on azathioprine, 15 % on methotrexate, and none on mycophenolate. Among them, 76.9 % were ANA positive, and 38.5 % were anti-dsDNA positive. A low complement was present in 15 %. Forty-six percent had 2–3+ proteinuria; none had any reported casts in urine. Forty-six percent had hematuria. Thirty percent had leucopenia, and 61.5 % had anemia (Hb<10 g/dl) with a mean hemoglobin of 9.82 g/dl. None had thrombocytopenia. There was no reported death during the study period.

Characteristics of the patients who did not meet the ACR criteria

Eleven patients had incomplete lupus. They were on follow-up for SLE at the clinic but did not meet the ACR criteria. Their age ranged from 7 to 80 years of age.

They comprised a 15-year-old patient with malar rash and serositis; a 30-year-old patient with malar rash and arthritis; a 26-year-old patient with vasculitis and arthritis; a 25-year-old patient with malar rash and deep venous thrombosis; a 26-year-old patient with arthritis and a neurologic disorder; a 48-year-old patient with malar rash, positive antinuclear antibody, and vasculitis; a 29-year-old patient with renal disorder (proteinuria), positive anti-dsDNA, ENA, and ANA; a 7-year-old patient with leucopenia, arthritis, and malar rash; an 80-year old female with arthritis, renal disorder, and a positive ANA; a 15-year-old patient with arthritis; and a 32-year-old with renal and hematologic disorder.

Table 2 Comparison with other African studies, studies in African Americans, and European studies

Country/ethnic group	Kenya	South Africa [3]	Tunisia [4]	Gullah African Americans [9]	Arabs in Dubai [11]	Eurolupus 1990–2000 cohort [12]
Sample size	13	226	100	184	110	1,000
Mean age (Years)	34	34	32	39	35.5	37
Female: male ratio	13:0	18:1	11.5:1	9.13:1	20.5:1	10:1
Photosensitivity (%)	46	39	53	60.9	45	22.9
Malar rash (%)	69.2	58	63	56	62	26.4
Discoid rash (%)	23	41	18	34.2	12.8	7.8
Oral ulcers (%)	23	39		43.5	23.9	8.9
Arthralgia/ Arthritis %	69.2	70	78	89.1	86.2	48.1
Serositis	15.4		29	45.1	16.5	16
Neuropsychiatric	23.1	16	25	21.2	15.6	19.4
Renal	61.5	44	43	55.4	46.8	27.9
Thrombocytopenia (Hematologic*)	0(38.5*)	13	12	(54.3*)	17.4 (60.5*)	13.4

Discussion

SLE is reported as a rare disease with a population prevalence of 0.2 %. Previously SLE has been reported to be rare in black Africans. This report aims to dispel this notion and to demonstrate that SLE is present in Kenyans and renal disorder is just as prevalent as in the Afro-Caribbean in the West [8] and African Americans [9, 10] (Table 1).

The manifestations are comparable in our group of patients and the other studies [3, 4, 9, 11] (Table 2).

The low prevalence of ANA in our population may be due to methodology, i.e., use of ELISA rather than immunofluorescence assay.

The absence of male patients in our report may be due to the small number of our patients.

Conclusion

This study contains a small number of patients, but it confirms the presence of SLE in Kenya that meets the ACR criteria. Malar rash, arthritis, and renal disorder were the most prevalent manifestations, and antinuclear factor was present in 76.9 %.

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Disclosures None.

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