

CONCISE REPORT

Suicide attempts in patients with systemic lupus erythematosus

F B Karassa, M Magliano, D A Isenberg

Ann Rheum Dis 2003;62:58–60

Background: Suicide and suicide attempts, although well recognised in patients with systemic lupus erythematosus (SLE), have been commented on relatively little.

Objective: To obtain a better understanding of the reasons for suicidal behaviour in patients with SLE.

Methods: The records of 300 patients with SLE were reviewed to identify completed or attempted suicides.

Results: Five patients made seven attempts at suicide over a 20 year follow up period; one of them was fatal. All of those attempting suicide had a history of neuropsychiatric SLE (NPSLE) presenting with depression and they made the attempts soon after the onset of NPSLE (median time 12.5 months). Two patients had appreciable disease activity at the time of the suicide attempt. Lymphopenia was present in five suicide attempts. Anti-SSA/Ro antibodies were detected in three patients, none of whom had anti-SSB/La. All patients apart from one responded to treatment for depression; the remaining female patient made two subsequent suicide attempts, with a fatal outcome despite intensive treatment.

Conclusion: Greater awareness of the risk of suicide in patients with psychiatric manifestations of SLE may help to reduce the incidence of this potentially fatal phenomenon.

A suicide attempt is an act of self inflicted harm accompanied by explicit or implicit intent to cause death. Although only one in eight to 10 people attempting suicide succeed, suicide remains a major cause of death. More than 90% of suicide victims are psychiatrically ill and 45–77% of them have a mood disorder at the time of death.¹ Chronic physical illness is an important risk factor for suicide. Systemic lupus erythematosus is one with a risk quoted to be fivefold higher than expected.² Many factors may contribute to this occurrence: pathophysiological changes in the brain resulting from the underlying disease (NPSLE), depression related to the variable course and the unpredictable nature of the disease, and corticosteroids may rarely induce mental disturbance.

METHODS

We reviewed the medical records of the first 300 patients with SLE attending our lupus clinic over a 20 year period to identify attempted and completed suicides. Our aim was to identify any potential risk factors for the suicide in these patients related to their underlying condition.

All patients fulfilled the American College of Rheumatology (ACR) 1982 revised criteria for the classification of SLE.³ Demographic, clinical, and laboratory data as well as current and previous treatments were recorded from patients' charts. Disease activity was evaluated using the British Isles Lupus Assessment Group (BILAG) index (version 3).⁴ Neuropsychiatric lupus (NPSLE) was defined according to the ACR definitions.³ Table 1 lists the details.

RESULTS

Since 1979 five patients with SLE (2%), four women and one man, made seven suicide attempts, although only one was fatal. The mean age of the patients at the time of the suicide attempt was 41 (SD 8.69) years and median disease duration 2.5 years (range 1–11 years). All patients had a history of depression at the time of the suicide attempt. None of them were inpatients at the time of the attempt. Only one patient had expressed prior suicidal intent and was found to have left a suicide note (patient 1); none of the others had, as far as we could ascertain, expressed suicidal thoughts or gave warnings. After two attempts patients were unable to describe clearly how they became vulnerable to suicidal impulses; however, four patients expressed difficulties in coming to terms with the diagnosis of SLE. One patient (patient 3) reported sleeping difficulties and irritability in the year before the attempt at suicide. Psychological factors such as unemployment, being separated, and being isolated in the community due to the chronic illness were present in all patients. Ingestion was the only form of suicidal behaviour and involved analgesic drugs regularly used by patients in six cases; the other ingestion was of turpentine fluid. All patients were reviewed by a psychiatrist and received treatment for depression.

All of the patients had evidence of NPSLE before the time of attempted suicide. Patients 2–5 all had depression with or without an anxiety state at the time of the attempt. Patient 1 had a complicated history and two psychiatrists who were seeing her gave divergent opinions. On balance we thought it reasonable to regard her as being depressed at the time of her first suicide attempt but this was not as clear cut at the time of the second attempt. She had progressive cognitive dysfunction as manifested by a decline in verbal IQ and memory impairment, with a profound effect on the patient's mood and feeling of hopelessness.

Median time from the onset of involvement of the central nervous system (CNS) to the attempt at suicide was 12.5 months (range 3–27 months). In two out of three patients who were evaluated with brain MRI multiple white matter lesions were found.

Two patients had appreciable disease activity at the time of the attempt. Lymphopenia was present in six instances, in two the lymphocyte count was less than $0.7 \times 10^9/l$. Anti SSA/Ro antibodies were detected in three patients whereas none of them had anti-SSB/La. After the suicide attempt patient 1 was treated with pulses of cyclophosphamide and methylprednisolone (the first cycle was followed by the suicide attempt), patient 4 received three pulses of methylprednisolone and oral prednisolone was increased in patients 2, 3, and 5 (by a mean of

Abbreviations: ACR, American College of Rheumatology; BILAG, British Isles Lupus Assessment Group; CNS, central nervous system; NPSLE, neuropsychiatric systemic lupus erythematosus; SLE, systemic lupus erythematosus

Table 1 BILAG index (version 3) for each organ system on suicidal attempts*

Patient No	Age/sex/ethnic group	Date of suicide	BILAG index for each organ system										Total score			
			General manifestations	Mucocutaneous	CNS	Musculoskeletal	CVS/respiratory	Vasculitis	Renal	Haematological	DNA‡	C ₃ §		ESR	Lymphocytes (10 ⁹ /l)	
1	39/F/W	5/99	B	C	B	D	D	D	D	C	E	D	260	0.87	3	2.2
1		9/00	B	C	D	D	D	D	D	C	E	C	262	0.9	5	1.1
1		4/01†	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	53/F/1	8/89	B	D	B	B	B	C	C	D	E	B	1800	0.93	14	0.3
3	29/F/W	10/95	C	D	D	C	C	B	E	E	D	C	68	1.16	43	1.2
4	40/F/B	12/99	C	C	A	C	C	D	D	D	E	C	170	1.2	-	1.2
5	44/M/W	7/99	C	D	B	B	B	E	E	E	E	C	10	1.2	9	0.6

*The BILAG index is scored as follows: A, disease of sufficient activity to warrant disease modifying treatment with high dose steroids or immunosuppression; B, disease of less activity than in A, requiring only symptomatic treatment, antimalarial drugs, or low dose steroids; C, stable mild disease; D, system was previously affected but currently inactive; E, system was never involved; †No data available on patient 1 at the time of the last suicide attempt; ‡DNA: normal range <50 units/ml; §C₃: normal values 0.75–1.75 mg/ml; B, black; I, Indian; W, white; M, male; F, female; CNS, central nervous system; CVS, cardiovascular system.

20 mg/day). Patient 1 continued to deteriorate cognitively despite the treatment with cyclophosphamide and anti-CD20 monoclonal antibody directed at NPSLE manifestations. This patient made two subsequent attempts of suicide, the last one being fatal.

DISCUSSION

Patients with SLE are at almost five times greater risk for suicide than expected.² In our cohort of patients 2% had a documented history of attempted suicide. Could we have missed more suicide attempts? We cannot completely exclude this possibility but consider it unlikely as the BILAG form that we complete at every patient assessment specifically records depression and any worsening of this feature would have led to further enquiries about suicide attempts. As a control we reviewed the notes of 140 patients with primary Sjogren’s syndrome followed up by us from 1988 to 2001. To date none have attempted suicide.

All our patients who made attempts at suicide had been diagnosed with depression at some time before the attempt. Psychiatric dysfunction represents a common NPSLE manifestation and may range from mild affective disorders to severe psychosis.^{6,7} Our patients with NPSLE made suicide attempts within two years of the onset of involvement of the CNS; all but one had favourable outcomes with more intense treatment. Similarly, five out of seven previously reported suicidal patients with SLE presented either with depression or schizophrenia; all three survivors had a favourable response to increased dose of steroids or immunosuppressant drugs.⁸ To our knowledge none of our 300 patients have attempted suicide after treatment with large amounts of corticosteroids. Insomnia was a feature in all patients before the suicide attempts, and the presence of hypocomplementaemia and reducing dose of steroids possibly resulting in suboptimal control of the disease activity were implied as important suicidal risk factors.⁸

Futrell *et al* described six suicide attempts in 31 patients with NPSLE with major behavioural changes.⁹ Suicidal patients with SLE coupled with depression and aggressive behaviour have also been reported.^{10,11}

Although a link between lupus psychosis and antiribosomal P antibodies has been claimed,¹² assays to detect these antibodies are not readily available for identifying patients at risk in routine clinical practice. Interestingly anti-SSA/Ro was detected in three of our patients; this is twice the 30% prevalence of these antibodies in our patients with SLE overall (relative risk=3.66; D A Isenberg, unpublished observations). None of them had concomitant anti-SSB/La antibodies. The relevance of this finding is unknown.

Patients with SLE are at greater risk of suicide, and vigilance to identify and treat symptoms and signs of depression is crucial. Although involvement of the CNS creates an additional risk we should not underestimate the importance of the psychosocial factors that coping with life threatening and unpredictable illness creates.

Authors’ affiliations

F B Karassa, M Magliano, D A Isenberg, Centre for Rheumatology, The Middlesex Hospital, University College London, UK

Correspondence to: Professor D A Isenberg, The Middlesex Hospital University College, London, Arthur Stanley House, 40–50 Tottenham Street, London W1T 4NJ, UK; d.isenberg@ucl.ac.uk

Accepted 7 June 2002

REFERENCES

- Ghosh TB, Victor BS. Suicide. In: Hales RE, Yudofsky SC, Talbot JA, eds. *Textbook of Psychiatry*. 3rd ed. Washington, DC: The American Psychiatric Press, 1999:1383–400.
- Harris EC, Barraclough BM. Suicide as an outcome for medical disorders. *Medicine* 1994;73:281–96.
- Tan EM, Cohen AS, Fries JF, Masi AT, McShane DJ, Rothfield NF, *et al*. The 1982 revised criteria for the classification of systemic lupus erythematosus. *Arthritis Rheum* 1982;25:1271–7.

- 4 **Hay EM**, Bacon PA, Gordon C, Isenberg DA, Maddison P, Snaith ML, *et al*. The BILAG index: a reliable and valid instrument for measuring clinical disease activity in systemic lupus erythematosus. *Q J Med* 1993;86:447–58.
- 5 ACR Ad Hoc committee on neuropsychiatric lupus nomenclature case definitions for neuropsychiatric syndrome in systemic lupus erythematosus. *Arthritis Rheum* 1999;42:559–608.
- 6 **West SG**. Neuropsychiatric lupus. *Rheum Dis Clin North Am* 1994;20:129–58.
- 7 **Karassa FB**, Ioannidis JP, Boki KA, Touloumi G, Argyropoulou MI, Sirigaris KA, *et al*. Predictors of clinical outcome and radiologic progression in patients with neuropsychiatric manifestations of systemic lupus erythematosus. *Am J Med* 2000;109:628–34.
- 8 **Matsukawa Y**, Sawada S, Hayama T, Usui H, Horie T. Suicide in patients with systemic lupus erythematosus: a clinical analysis of seven suicidal patients. *Lupus* 1994;3:31–35.
- 9 **Futrell N**, Schultz LR, Millikan C. Central nervous system disease in patients with systemic lupus erythematosus. *Neurology* 1992;42:1649–57.
- 10 **Goodwin JM**, Goodwin JS, Kellner R. Psychiatric symptoms in disliked medical patients. *JAMA* 1979;241:1117–20.
- 11 **MacNeil A**, Grennan DM, Ward D, Dick WC. Psychiatric problems in systemic lupus erythematosus. *Br J Psychiatry* 1976;128:442–5.
- 12 **Sterling G**, West MD. Neuropsychiatric lupus. *Rheum Dis Clin North Am* 1994;20:129–56.

Readers' favourite

Top 10

Click on the "Top 10" button on the homepage to see which are the best read articles each month

www.annrheumdis.com