# Anti-ribosomal Antibodies and Psychosis in Patients with Cutaneous Lupus Erythematosus

*Sir*,

Only a few of the antinuclear or anticytoplasmic antibodies detectable in lupus erythematosus (LE) are markers of the disease. This is so in the case of anti-double-stranded DNA (ds-DNA) and anti-Sm antibodies. Other autoantibodies are typical of certain subsets of the disease, as in anti-Ro/SSA antibodies, which mark subacute cutaneous LE (SCLE) and neonatal LE, and of anti-ribosomal protein antibodies (ARPAs), which mark LE patients with psychosis (1). In fact, ARPAs can even precede the psychotic episodes (2). Early detection of ARPA may therefore point to those patients who will develop LE-related psychosis.

Patients with cutaneous LE, who represent a large proportion of LE patients, have never been studied from this point of view.

## PATIENTS AND METHODS

Sixty-nine patients (19 males and 50 females) affected by cutaneous LE were studied. They were selected from our files as being those with the longer follow-up. Twenty-nine of them had localized discoid LE, 16 disseminated discoid LE, 11 SCLE and 13 had other cutaneous lesions, such as malar rash, non-cicatricial alopecia and photosensitivity. Forty-two fulfilled four or more criteria of the American Rheumatism Association (ARA) for the classification of systemic LE (3).

Sera had been collected during the first visit 2–7 years previously and stored at –20°C and simultaneously submitted to ELISA for ARPAs (ABP, Mississauga, Ont.). The sera were considered positive when they had a value of 25 units (cut-off value) or more. The same sera were assayed also for antinuclear antibodies (ANA) in IIF using HEp 2 cells as substrate, anti-ENA antibodies using counterimmunoelectrophoresis and anti-dsDNA antibodies with ELISA.

## RESULTS

All but six patients disclosed ANA in IIF. Twenty-four had anti-dsDNA antibodies and 10 had anti-Ro/SSA antibodies. Three of the latter also had anti-La/SSB antibodies.

ARPAs were found at high titres (46 U) in one patient, a 27-year-old male, with SCLE and who had only three ARA criteria. He did not have anti-dsDNA antibodies (Table I). About 2 years after the first visit he developed lupus-related schizophrenia. The patients had not been treated with corticosteroids before the onset of psychosis.

Another patient had low ARPA titres (25 U). She developed a depressive syndrome probably reactive to the main disease. In addition, she had been treated with corticosteroids.

Of the ARPA-negative patients, one, with SCLE, had two episodes of seizures and a peripheral neuropathy about 1 year after the first visit.

Table I. *Number of patients with auto-antibodies*

| Result | Antibodies anti- | | | |
|---|---|---|---|---|
| | ANA | dsDNA | Ro/SSA | ARPA |
| Positive | 63 | 24 | 10* | 1 |
| Negative | 6 | 45 | 59 | 68 |

* Three also had anti-La/SB antibodies.

## DISCUSSION

ARPAs are directed to three phosphoproteins of 38, 19 and 17 KDa, respectively, located on the larger 60S subunit of eukaryotic ribosomes (4). Although their pathogenetic role has not been clarified, ARPAs can be detected in between 12 and 42% of patients with SLE (5) and in 90% of patients with SLE psychosis (2). In the latter the titres are elevated when the disease is active and low after a successful treatment.

About 33% of our patients had four or more ARA criteria and should be defined as having SLE. Most of them, however, had no signs of active visceral disease. We have shown elsewhere that ARA criteria should not be applied to patients with cutaneous LE (6). Only one of them (1.5%) had ARPAs.

While contrasting with Takehara et al., who suggest that ARPAs can be serological markers even of mild clinical forms of SLE (7), our findings confirm that they may herald the development of psychosis long before, as they did in two cases described by Bonfa et al. (2).

Psychosis is quite a rare occurrence in patients with strictly cutaneous LE. In our experience, it develops only in 0.5% of cases. Nonetheless, the severity of such a disorder should advise the dermatologist to add ARPAs to the list of auto-antibodies required to study LE patients.

## REFERENCES

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A. Parodi[1], M. Drosera[1], L. Barbieri[2] and A. Rebora[1]
[1]Department of Dermatology, University of Genoa, V. le Benedetto XV n. 7, IT-16132 Genoa and [2]Bouty Laboratories, Milan, Italy.