

Review of the pharmaceutical treatment outcome in cases of complicated systemic lupus erythematosus with aplastic anemia

Sir

There are few reports about the presentation of systemic lupus erythematosus (SLE) with aplastic anemia (AA). All of them have reported obscure cases that have been threatened with routine or new immunosuppressive agents. It seems that it is necessary to analyze these cases for a final conclusion, although previous reports have been concluded with regard to their findings and some of them have rarely provided a review.^[1]

We systematically reviewed the literature and found 29 lupus cases with AA. We also pooled the data and analyzed them. The mean age of the patients was 32.08 ± 18.19 (\pm SD) years and the mean years of AA onset after SLE diagnosis was 15.60 ± 27.85 . Twenty-six patients (89.6%) were female and there was no significant difference in age or AA onset between gender groups (P value > 0.05). Five out of 29 patients had no suitable response to treatment. There was no significant difference in age, AA onset or gender, between groups of patients with suitable and unsuitable response. (P value: 0.951, 0.672, and 0.618, respectively).

Steroids were generally used for every patient and further treatment was added due to inadequate response. Various treatment protocols including Plasmapheresis (four cases), cyclophosphamide (four cases), oxymethalone (two cases), cyclosporine (four cases), solely steroids (nine cases), a new biological drug (one case), mixed protocol containing steroids, androgens, plaquenil, granulocyte colony-stimulating factors (G-CSF), and antithymocyte globulin (five patients) were used. Statistically, there was no significant relation found between the response groups

and protocol of treatment, (P value: 0.535). By using multivariate analysis, we found that none of the underlying factors such as gender, age or years of AA onset after SLE diagnosis significantly affected the outcome.

We conclude that there are no preferences in a particular medication for patients with different characteristics and it seems that the medications must be chosen according to physician preference and experience.

In recent times, new biological / pharmaceutical drugs, such as Rituximab (a chimerical CD20 positive B-cell lymphocyte suppressor), were successfully used for lupus patients, who had complications with refractory hematological disorders.^[2] Also, Rituximab was effectively used for the immune-based hematological disorders (with or without bone marrow involvement).^[3] With regard to the etiology of aplastic anemia, secondary to lupus (dysregulation of T and B lymphocyte cells or auto-antibodies that result in the destruction of multi-potential bone marrow stem cells),^[4] it is expected that the therapeutic role of a new biological therapy will become more prominent in these patients in the future.

The majority of cases with systemic lupus erythematosus and additional acquired aplastic anemia are partially or completely treated by using conventional pharmaceutical medications, however, some of them did not, and in these cases, new biological drugs may be used, but for other aspects, further investigations may be recommended for definite inference. Finally, the cases with SLE and acquired AA can benefit with new biological treatment; however, at the initial step, traditional immunosuppressive medications are recommended as a safer and cheaper option.

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