EFFECTIVENESS OF NON-BIOLOGICAL IMMUNOSUPPRESSIVE MEDICATIONS IN SHORT AND LONG-TERM STEROID-SPARING CAPACITY IN LUPUS AUTOIMMUNE THROMBOCYTOPENIA

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BACKGROUND

Systemic lupus erythematosus (SLE) immune thrombocytopenia is associated with a worse prognosis and higher mortality. Glucocorticoids (GC) are considered the first line therapy for severe thrombocytopenia in SLE. Although high-dose of GC is usually effective for induction, relapses are frequent and sustained long-term remission is uncommon. Though immunosuppressive (IS) drugs are routinely used as steroid-sparing treatments for immune thrombocytopenia in SLE, their efficacy is not well established. The objective of this work was to evaluate the efficacy of nonbiological IS as steroid-sparing drugs in short (12 months) and long-term (up to 5 years) treatment of autoimmune thrombocytopenia in SLE. The evaluated short-term outcome was at least 50% GC reduction from baseline or GC dose < 7.5 mg with sustained platelets levels > 100,000/mm³. The long-term outcome was evaluated as years free from thrombocytopenia flare.

METHODS

This is an observational, retrospective study of an ongoing electronic chart prospective SLE cohort established in 2000. Inclusion criteria were: SLE diagnosis (Petri M, et al., 2012); immune thrombocytopenia (< 100,000/mm³ repeated and confirmed) that motivated a change in treatment, follow-up of at least 12 months. Exclusion criteria were other nonautoimmune thrombocytopenia causes (viral infections, bone marrow and liver diseases). A total of 94 consecutive patients from 2004 to 2016 were screened, 21 were excluded due to nonautoimmune causes of thrombocytopenia and 73 were included for analysis. Data regarding disease activity score, complete blood count, complement, anti-DNA, platelet flares (defined as platelet levels < 100,000/mm³) and IS treatments were recorded at baseline and after 3, 6, 12 months and 5 years of follow-up. Comparisons between groups were performed with Student t-test, chi-squared test, Fisher exact test, ANOVA and Kruskal–Wallis as appropriate. The long-term free from thrombocytopenia flare was evaluated with Kaplan–Meyer curves and LogRank test.

RESULTS

The short-term outcome was achieved by 70% (51/73) of thrombocytopenic SLE patients under nonbiological IS. The prednisone dose at 12 months was lower than at baseline (44 + 24 vs. 15 + 14, $p < 0.00001$). Mainly three different IS were used: azathioprine (AZA = 34), mycophenolate mofetil (MMF = 21), and cyclophosphamide (CFF = 16) with comparable efficacy for short-term outcome (62% vs. 62% vs. 94%, $p = 0.08$). The IS prevented long-term flares in 73% (53/73) of patients. The three IS drugs were comparable in preventing long-term thrombocytopenia flare ($p = 0.47$).

CONCLUSION

Nonbiological IS drugs are effective in treating thrombocytopenia and allow steroid-sparing in 70% of patients; AZA, MMF or CFF are comparable regarding short- or long-term outcome in immune thrombocytopenia in SLE.

KEYWORDS

Autoimmune thrombocytopenia, Nonbiological immunosuppressive, Steroid-sparing.