Background and Aims

We aimed to assess the influence of co-existing atopy on the prognosis of juvenile systemic lupus erythematosus (JSLE)

Methods

Patients diagnosed with JSLE between October 2005 and April 2016 were enrolled in a prospective cohort study and followed for 2 years. Management of patients was evaluated using SLEDAI-2K score. Eighty JSLE patients were enrolled at diagnosis and were divided into those with atopy and those without.

Results

Atopic patients had significantly higher SLEDAI-2K at disease onset (16.09 vs. 11.18), higher anti-double-stranded DNA (66.58 vs. 44.55 IU/ml), higher erythrocyte sedimentation rate (52.89 vs. 38.27 mm/h), higher percentage of total B-cells (25.85 vs. 19.51%), lower percentage (7.26 vs. 9.03%) and activity (9.92 vs. 11.32%) of natural killer cells, lower complement C3 (0.51 vs. 0.69 g/L), and lower complement C4 (0.69 vs. 0.51 g/L) (p<0.05 for all comparisons). At 1 month, sRANKL level of the cohort was 52.3 (24.1, 66.4) pg/mL. Serum RANKL levels were not significantly different in active and inactive disease subgroups [median (interquartile range): 55.2 (21.3, 66.4) pg/mL versus 53.3 (29.3, 64.9) pg/mL, respectively] (p=0.89). There was no statistically significant correlation between sRANKL levels and SLEDAI scores, Spearman correlation coefficient rho=0.083, p=0.65.

Conclusions

There was no significant difference in sRANKL levels between the inactive and active disease group. Also there appears no correlation between sRANKL level and SLEDAI scores.