ATOPY IN CHILDREN WITH JUVENILE SYSTEMIC LUPUS ERYTHEMATOSUS IS ASSOCIATED WITH SEVERE DISEASE

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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 evaluated at enrollment using an enzyme-linked immunosorbent assay (sRANKL

Results

<table>
<thead>
<tr>
<th>SLEDAI Score</th>
<th>Active Disease Subgroup</th>
<th>Inactive Disease Subgroup</th>
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Background and aims Receptor Activator of Nuclear Factor κ B (RANK), its ligand (RANKL) and osteoprotegerin are the key mediators of bone remodelling and the final effector pathway in osteoclast development and differentiation. The data on RANKL axis in paediatric Systemic Lupus Erythematosus (SLE) is lacking. Thus we proposed to estimate serum sRANKL levels in paediatric SLE and to correlate sRANKL levels with the SLE disease activity

Methods

Consecutive children with SLE attending Paediatric Rheumatology Clinic of Advanced Paediatrics Centre, PGIMER, Chandigarh were enrolled. The study group was divided into active (with ongoing disease activity) and inactive (no disease activity) subgroups based on SLE disease activity index (SLEDAI) scores. The sRANKL ligand levels were measured at enrollment using an enzyme-linked immunosorbent assay (sRANKL – ELISA MyBioSource, USA).

Results

Thirty-one children (12 boys) with a mean age of 13.4 ±3.2 years were included. The median (interquartile range) 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.