Role of specific IgE on staphylococcal enterotoxin B in chronic rhinosinusitis severity

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Abstract

Objective: To investigate the clinical significance of specific IgE-staphylococcal enterotoxin in CRS. Design: Retrospective analysis of patients who were positive for specific IgE-staphylococcal enterotoxin B. Setting: Tertiary rhinology clinic. Participants: A total of 965 patients who were positive for specific IgE-staphylococcal enterotoxin B from December 2016 to December 2017 Main outcome measures: We retrospectively reviewed the records of 965 patients who were positive for specific IgE-staphylococcal enterotoxin B from December 2016 to December 2017. Patient demographics, titre specific IgE to staphylococcal enterotoxin B (IgE-SEB) levels, MAST, serologic test, and medical records were reviewed. Results: IgE-SEB (KU/L) was higher in CRS patients than Non-CRS patients (0.13±0.37 vs 0.08±0.22, respectively; p-value: 0.044), and the IgE-SEB (+, [?]0.35) rate was also higher (10.06% vs 4.46%, respectively; p-value: 0.030). IgE-SEB (KU/L) was higher in the CRS group than in the fungal sinusitis group (0.13+-0.37 vs 0.03+-0.05, respectively; p-value: <0.001), and the IgE-SEB (+, [?]0.35) rate was also higher (10.06% vs 0 %, respectively; p-value: 0.015). Between the CRSsNP (chronic rhinosinusitis without nasal polyps) and CRSwNP (chronic rhinosinusitis with nasal polyps) groups, there were no differences in IgE-SEB (KU/L) or IgE-SEB (+) rates. As the values of IgE-SEB(KU/L) and the IgE-SEB (+,>0.1) rate increased, the CRS severity also increased. Conclusions: IgE-SEB showed a positive correlation with CRS severity but not with postoperative recurrence or nasal polyps. Further studies are needed to obtain clear evidence that IgE-SEB can be considered as an independent CRS endotype.

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