

IgE and IgG Antibodies against *Bipolaris Australiensis* (Ba) in Allergic Fungal Sinusitis

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Received date: April 20, 2015; Accepted date: June 10, 2015; Published date: June 17, 2015

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Description

Twelve adult patients suffering an allergic fungal sinusitis were checked by skin-testing with a Ba extract (13 mg/mL of proteins detected by the Bradford technique) and their sera were submitted to an ELISA-IgE and IgG methods following Phadebas recommendations [1-7]. Seven patients aged 22 years-45 years old were atopic (serum IgE \geq 120 KU/L) and suffered chronic allergic rhinitis and asthma; the other 5 patients aged 33 years-54 years old were not atopic (serum IgE 40 ± 18 KU/L) and no other respiratory complaints [8-19]. The former revealed positive skin tests to the Ba extract with a wheal & flare reaction ≥ 5 mm meanwhile the latter group did not show any positive result and behave as a control group [20-25]. The atopic group was weekly subcutaneous vaccinated with the Ba extract (1 mg/dose/week) and after 3 years they revealed significant decrease of their IgE-anti-Ba levels and a marked increase of their IgG-anti-Ba values correlated with a significant improvement of their respiratory condition [26-32]. On the other hand, the control group was not vaccinated by ethical considerations, showed no changes in their serum values and suffered the recurrence of their illness [33-41]. The usefulness of specific immune-therapy with Ba is reinforced for the treatment of allergic fungal sinusitis. An experimental model with guinea-pigs was developed by the daily aerosolization of the protein-peak of Ba obtained by Sephadex G-50 column fractionation [42-49]. After 12 weeks a typical hypersensitivity pneumonitis was obtained with intense interstitial infiltrates of the lungs, solitary granulomas and foamy cells. It was also checked the presence of IgE-anti-Ba antibodies by the Ovary-Bier's test and of IgG-anti-Ba by the Ouchterlony technique [50-52]. It was demonstrated that the fungus Ba or *Cochliobolus* species is a potent antigen that inducing a chronic inflammatory process requires aggressive surgical and pharmacological treatments reinforced by immune-therapy [53,54].

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