P9-80 | Exposures to cigarette smoke and house dust in relation to child asthma at Harum Melati Clinic, Pringsewu Regency, Lampung, Indonesia

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Objective: Asthma is a significant chronic lung problem of childhood. Its global prevalence and morbidity have increased significantly in the world.1 Sensitization and exposure to triggers in the indoor environment, including house dust exposure, and environmental tobacco smoke may have a role in asthma development and morbidity.2 The aim of this study was to evaluate the relation between the exposures to cigarette smoke and house dust with child asthma in Indonesia.
Methods: It was a cross-sectional study which data were obtained from medical records of pediatric patients in the 2018-2020 at Harum Melati Clinic, Pringsewu, Lampung Indonesia. Subjects who had history of the exposures to cigarette smoke or house dust were involved in this research. A total of 220 subjects (123 asthma and 97 non-asthma) were included. Furthermore, the data were analyzed using the Chi-square test.
Results: The results indicated that the exposure to cigarette smoke and house dust in children were very high. There were 80.5% of participants exposed to cigarette smoke and 92.7% of participants exposed to house dust. There was a significant relationship between cigarette smoke exposure and child asthma ($p = 0.034$, OR = 1.94). In addition, there was a significant relationship between house dust exposure and child asthma at the Harum Melati Pringsewu Clinic ($p = 0.01$, OR = 3.72).

P9-81 | A case of mepolizumab-tolerant allergic bronchopulmonary aspergillosis successfully switching to benralizumab

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Our patient is a 49-year-old woman with persistent, severe asthma since she was 2 years of age. When she was 26 years old, she was diagnosed as allergic bronchopulmonary aspergillosis (ABPA) according to Rosenberg's primary criteria. Despite treatment with salmeterol-fluticasone propionate, a leukotriene receptor antagonist, and itraconazole over a period of 3 years, she continued to have chronic wheezing and mucus-plugged bronchioles. Consequently she received a short course of systemic corticosteroids (SCS), a second dose of fluticasone propionate was add to her treatment regimen, and her antifungals was changed to voriconazole. In addition, she followed allergen avoidance practices in her bedroom. However, because of her persistent, frequent disease exacerbations (DE) over the next 2 years, she began receiving omalizumab monthly; nevertheless, she needed SCS eight times during the first year of this treatment, and her peripheral blood eosinophil count (Eos) was continuously high (maximum, 5050/μL). After 26 months, omalizumab was changed to 100mg of mepolizumab monthly. During the first year of mepolizumab therapy, she had fewer DE (i.e., four), and Eos was decreased (69-878/μL). However, after this first year, she experienced three DE in four months even though Eos did not increase (mean, 439.4μL [240-846/μL]). She had only one DE with SCS for two years after switching to 30mg of benralizumab, and her Eos decreased markedly (mean, 11.0/μL[0-316/μL, almost 0/μL in for 25 out of 28 months]). Benralizumab may be a good treatment option for severe ABPA.

P9-82 | Combination biologic therapy for refractory asthma: A report of two cases

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Background and Aims: The widespread use of biologics has resulted in symptom improvement, decreased frequency of exacerbations, and reduction in systemic corticosteroids in many intractable asthmatic patients. However, some patients with severe asthma remain poorly controlled even after the addition of a biologic monotherapy. The combination of multiple biologics therapy has rarely been provided due to efficacy, cost, or safety issues.
Cases: Patient 1. A 47-year-old Japanese man suffered from severe asthma, eosinophilic chronic rhinosinusitis (ECRS), eosinophilic otitis media and eosinophilic granulomatosis with polyangiitis (EGPA) with a maximal medical treatment including omalizumab. Although omalizumab therapy stabilized his clinical deterioration, it was unable to fully control his symptoms and to taper systemic corticosteroids. Therefore mepolizumab was added followed by marked amelioration. In particular, the dose of systemic corticosteroids needed for the suppression of his symptoms of asthma and ECRS could be tapered by 75%.
Patient 2. A 40-year-old Japanese woman with refractory asthma, severe atopic dermatitis and EGPA on full controller treatment started mepolizumab. Although mepolizumab therapy could control her asthma symptoms and help to taper systemic corticosteroids, her skin symptoms such as itching still strongly remained. Dupilumab was added consequently with notable improvement in symptoms.
Results and Conclusions: Additional clinical improvement was found by the combined use of biologics, and no