

INTISARI

Latar Belakang Asma, eksim dan rinitis alergi telah meningkat secara signifikan dalam prevalensi di seluruh dunia dan mereka dipengaruhi oleh faktor genetik dan faktor lingkungan. Berdasarkan riwayat alergi keluarga, kartu deteksi dini alergi dapat mengidentifikasi tingkat risiko alergi pada anak-anak. Hubungan antara riwayat keluarga alergi dan manifestasi penyakit alergi baik sebagai satu penyakit alergi dan multimorbiditas alergi masih perlu ditelaah lebih lanjut.

Tujuan Untuk mengidentifikasi hubungan antara riwayat alergi pada keluarga dengan manifestasi penyakit alergi pada anak-anak usia sekolah.

Metode Kami melakukan studi observasi analitik potong lintang pada anak usia sekolah dengan usia 6-13 tahun. Penelitian ini dilakukan di delapan sekolah dasar di Yogyakarta. Riwayat alergi keluarga didefinisikan sebagai adanya asma, dermatitis atopik, rinitis alergi atau alergi makanan yang dilaporkan pada orang tua atau saudara kandung dan diklasifikasikan dalam tingkat risiko alergi berdasarkan kartu deteksi dini alergi. Subjek dengan hasil uji cukit kulit kemudian dianamnesis dengan kuesioner standar *The International Study of Asma and Allergies in Childhood* (ISAAC).

Hasil Cord blood IgE was measured on 124 children after birth. Only 94 children (76%) fulfilled the inclusion criteria. Atopic disease was found in 17 children (18%), consisting of 8 children with atopic dermatitis, 4 with allergic rhinitis, and 5 suffered from both. There were significant differences in the mean value of CB-IgE ($Z_{M-W} = 4.60$; $P < 0.001$) and FH ($\chi^2 = 19.059$; $P < 0.001$) between atopic and non atopic children. Cut off point of the CB-IgE concentration was 1.4 IU/mL (77.7%). The highest probability for atopic manifestations was found in children who had high CB-IgE and positive FH ($P = 45\%$). Relative risk of children with high CB-IgE level in positive FH group was 3.636 (95% CI 0.943; 14.016).

Kesimpulan Terdapat hubungan yang family history of atopic disease are risk factors for the development of atopic manifestation.

Kata kunci: Penyakit alergi, Riwayat keluarga, Multimorbiditas, Anak usia sekolah

ABSTRACT

Background Asthma, eczema and allergic rhinitis have increased significantly in prevalence worldwide and they are influenced by both genetic factor and environment factors. Based on family history of allergy, allergic trace cards can identify the level of allergic risk in children. The relationship between family history of allergy and manifestation of allergic disease as a single allergic disease and allergic multimorbidity still need to be explored

Objective To identify the associations between family history of allergic disease and manifestation of allergic disease in school-age children.

Methods We conducted an analytic observational study with cross sectional design on school age children with 6-13 years old. This study was conducted at eight elementary schools in Yogyakarta. Family history of allergy was defined as reported asthma, eczema, allergic rhinitis or food allergy in a parent or sibling and classified the level of allergic risk based on allergic trace cards. Subjects with skin prick test (SPT) result were questioned by standardized questionnaire, The International Study of Asthma and Allergies in Childhood (ISAAC).

Results A total of 260 (92%) children joined the third phase; consisted of 130 children with family history of allergic and 130 children without family history of allergic. Based of SPT consisted of 70 children with positive results and 190 children with negative results. The incidence of allergic disease was confirmed in 86 (33.08%) children: 41 (15.77%) children with allergic rhinitis, 18 (6.92%) children with atopic dermatitis, and 5 (1.92%) with asthma. Allergic diseases manifestation were confirmed in 57.1% atopy children and 24.2% nonatopy children. Allergic diseases manifestation were confirmed in 41.5% children with and 24.6% children without family history of allergic. Atopy has stronger association with allergic disease manifestation in under five children, but family history of allergic also has association so it's important to ask parents.

Conclusion Family history of allergic disease is a risk factors for the development of allergic manifestation both a single allergic disease and multimorbidity.

Key words: Allergy, Family history, Multimorbidity, Children