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EXPLORING THE PREVALENCE OF COW MILK AND SOY ALLERGIES AMONG BREASTFEEDING MOTHERS BY EXAMINING T-IgE AND SPECIFIC IgE LEVELS

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Abstract

Cow and soy milk are recognized as common allergens that can trigger allergic reactions among infants, including those breastfed. It is most likely that the cow and soymilk allergens can be transmitted to infant through breast milk. Investigation on the maternal allergy status is essential to scrutinize the determining source of breastmilk transmitting allergens among the lactating mothers. This cross-sectional study is aimed to assess the prevalence of cow and soymilk allergies among lactating mothers by examining immunoglobulin E (IgE) levels. 36 lactating mothers were selected through convenience sampling in Dengkil, Selangor, and Kuantan, Pahang, Malaysia. Laboratory tests conducted using the ImmunoCAP 100 with CAP RAST (Radio-allergo-sorbent Test) system revealed Total IgE (T-IgE) levels ranging from 82 to 233 kU/L, with a mean SD of 142.27 ± 41.49 . Specific IgE (s-IgE) levels for cow milk ranged from 0.10 ± 0.48 kU/L with a mean \pm SD of 0.251 ± 0.09 kU/L, and s-IgE levels for soy ranged from 0.02 ± 0.04 . The study found that 19.4% of respondents were clinically diagnosed with cow milk allergy and none were diagnosed with soy allergy. The Pearson correlation demonstrated a strong positive correlation ($r = 0.691$, $p < 0.001$), between T-IgE and cow milk IgE. No significant was observed between T-IgE and soy IgE as $r = 0.159$, $p > 0.05$. An independent T-test revealed a significant difference in T-IgE levels between positively diagnosed mothers with cow milk allergy ($p = 0.022$). This study suggests that relying solely on T-IgE levels may not be sufficient to determine allergy prevalence. By combining with s-IgE it can offer a more accurate diagnosis as a foundation for effective allergy management. © (2024), (Malaysian Public Health Physicians Association). All Rights Reserved.

Author Keywords

exclusive breastfeeding); infants; Specific IgE (s-IgE); Total Immunoglobulin E (T-IgE)

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