

## عنوان مقاله:

Cytokine Levels and Polymorphisms in Childhood Asthma Among the Iranian Population

## محل انتشار:

مجله پزشکی کودکان، دوره 9، شماره 1 (سال: 1399)

تعداد صفحات اصل مقاله: 8

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## خلاصه مقاله:

Context: Chronic airway inflammation in asthma is affected by a complex network of interacting cytokines. The exact role of each cytokine in childhood asthma development has remained poorly understood. In this study, we aimed to review articles investigating cytokine levels and polymorphisms in childhood asthma among the Iranian population to assess susceptible cytokines related to childhood asthma. Evidence Acquisition: We performed a literature search in PubMed, Scopus, Science direct, and Embase databases to find articles that have evaluated the cytokine levels and gene polymorphisms in childhood asthma among the Iranian population until March ۲, ۲۰۲۰. The terms used to search included "cytokine", "interleukin", "polymorphism", "Asthma", and "Iran" in the international databases. Only case-control studies with a healthy control group that investigated cytokine levels and polymorphism in childhood asthma among the Iranian population have been included. Results: Considering these criteria, we extracted ۷ articles from international databases and included them in the current review. We investigated ۴ cytokine levels and ۴ cytokine polymorphism patterns in asthmatic and non-asthmatic subjects in Iran. Interleukin (IL)-۲۳, IL-۱۷, and IL-۳۳ levels were statistically higher in asthmatic children, and also IL-۳۳, IL-۱۷ levels were associated with asthma severity. There were no significant differences between healthy and asthmatic subjects regarding IL-۳۵ levels. Polymorphisms in cytokine IL-۴, IL-۱۰, tumor necrosis factor (TNF)- $\alpha$ , and IL-۲ were susceptible to childhood asthma in the Iranian population. Conclusions: Increased IL-۳۳ and IL-۱۷ levels were related to disease severity in childhood asthma. Four cytokine polymorphisms (IL-۴, IL-۱۰, IL-۲, and TNF- $\alpha$ ) were associated with the risk of pediatric asthma in the Iranian population

## کلمات کلیدی:

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