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Short Communication

Diagnosis and Basic Precautions in Pediatric Asthma

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ABOUT THE STUDY

Recent advances in asthma treatment, largely in the form of therapeutic monoclonal antibodies, have resulted from significant research on the more severe end of the disease spectrum. But only 2% of children with asthma had severe cases, according to research. As a result, non-severe asthma in children continues to be a significant health issue for both patients and parents as well as for the medical professionals who care for these patients, including general practitioners, pediatricians, and allergists. Airway inflammation, injury, and altered healing mechanisms are all results of multiple interconnected processes that contribute to severe asthma, including the dysregulation of specific anti-inflammatory processes that typically moderate the pattern of harm. The objectives of asthma treatment are to reduce symptoms and the risk of negative outcomes, such as the risks of acute exacerbations, long-term airflow restriction, and unfavorable pharmaceutical side effects.

Regardless of the severity of the condition, treatment of modifiable risk factors and appropriate pharmacological treatment must work hand in hand in order to achieve this goal. These include teaching proper inhaler technique, educating patients about self-management, eliminating airway irritants like tobacco smoke, eliminating specific allergens like house dust mites, mould, and animals, helping overweight and obese children lose weight, and treating co-morbid conditions like allergic rhino conjunctivitis, psychosocial issues, and reflux disease.

Significant progress has been made in the pharmacological management of asthma in recent years, particularly in the area of biologically tailored treatment. These improvements, however, have mostly targeted severe asthma and have been concentrated in the adult population. This is logical given that severe asthma places a heavy strain on all facets of the illness. On the other hand, it is also true that children with severe asthma are relatively uncommon and likely make up less than 2% of all cases of asthma seen in this demographic [1]. Although the taxonomy of childhood includes children from 0 to 18, preschoolers have unique traits when it comes to asthma and asthma therapy, while adolescents (children between the ages of 12 and 18) are frequently lumped in with adults [2]. To lower their risk of severe exacerbations, the Global Initiative for Asthma (GINA) advised that all adults and adolescents with asthma should receive either symptom-driven (in mild asthma) or daily low dosage Inhaled Corticosteroid (ICS)-containing controller medication.

According to the European Respiratory Society (ERS) and the American Thoracic Society (ATS), severe asthma is described as having uncontrolled asthma despite treatment and requiring treatment with GINA steps 4-5 medication or systemic corticosteroids for at least 50% of the previous year to stay under control. For all practical purposes, non-severe asthma can be defined as asthma that can be controlled without the need for high dose Inhaled Corticosteroid-Long-Acting Beta Agonist (ICS-LABA), systemic corticosteroids, and finally the use of biological [3]. The vast majority of patients in the 6-12 year age group fall into this category.

In many geographic locations, childhood asthma exacerbations peak in the autumn season [4]. The dynamics of viral infections and allergy exposure when kids return to school are definitely connected to this. Children who are most likely to experience an asthma exacerbation in the autumn can be determined using the Seasonal Asthma Exacerbation Predictive Index (saEPI).

CONCLUSION

In addition to medicine, managing asthma involves a complex strategy including numerous treatments. Although children with non-severe asthma who have the Th2 signature, such as atopy, eosinophilia, and high nitric oxide levels, respond well to low dose ICS, clinical, laboratory, and genetic biomarkers that will help define the best approach for the initial treatment and stepping up in the specific child with non-severe asthma await the results of further research and remain an intriguing challenge in the field.

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