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Editorial

Dual Role of Inhaled Corticosteroids in the Management of Asthma: A Short Review of GINA 2020

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Abbreviations

ICS: Inhaled Corticosteroids; SABA: Short Acting Beta Agonist; GINA: Global Initiative for Asthma; LABA: Long Acting Beta Agonist

Asthma is a disease of airway hyperreactivity. For many years, inhaled bronchodilators have remained the mainstay of rescue treatment. In clinical practice, the choice of medication, the device and dose depends on a variety of factors and should be individualized. Several factors to be taken into consideration include symptom control, associated risk factors and comorbidities, patient preferences. But perhaps most of all, it is often the practical considerations such as cost, ability to use the individual device and patient adherence which dictate the outcomes.

Long term goals of Asthma management often involve two strategies. The first is to achieve good control of symptoms with attaining normalcy in a patient's routine life. The second is to prevent the morbidity and mortality associated with exacerbations, complications which include loss of lung volumes and the side effects of medication use. While short acting beta agonists (SABA) remained the cornerstone as rescue treatments, the recent GINA guidelines demonstrated significant evidence that use of ICS alone or ICS-LABA combinations have significantly improved outcomes in mild, moderate, and severe disease.

For the best outcomes, ICS should be initiated as soon as the diagnosis of asthma is made. The evidence suggests that as time progresses, higher doses of ICS are needed and a significant decline in lung function was noted. In cases of occupational asthma, in addition to removal of the offending agent, early initiation of ICS has shown resolution of airway hyperreactivity.

Due to safety concerns, GINA no longer recommends treatment of asthma in adults and adolescents with SABA alone. Treatment with ICS with as needed SABA has shown significant reduction in exacerbations and lung function. Adherence to ICS, however, remains an issue. For Mild asthma, treatment with ICS-LABA combination has shown to reduce the risk of severe exacerbations by about 2/3 compared to SABA only treatment. It is also non inferior to daily Low dose ICS for severe exacerbations. Evidence suggests that the combination of ICS-LABA as both maintenance and rescue when compared to maintenance plus as needed SABA has shown decreased exacerbations in severe disease. For patients with ICS-LABA combination as both maintenance and rescue treatment, the number of as needed doses are adjusted based on patients day to day symptoms while the maintenance dose remains constant.

Although most benefit is obtained from a low dose ICS at a group level, it varies between different patients with some patients requiring high doses of ICS despite good adherence and technique. The key to step down is good symptom control for at least 3 months with plateau of lung function. Therapeutic trial by slow titration of the dose, duration and frequency of ICS/ICS-LABA with careful monitoring of symptoms should be done.

Inhaled corticosteroids have minimal side effects such as oral thrush, hoarseness, vocal cord dysfunction, etc. They also have minimal interaction with systemic drugs when compared to oral steroids, although significant consideration needs to be given about systemic side effects when high dose ICS are used for a long period of time. Having a single inhaler as both maintenance and rescue improves adherence rates and also better outcomes with decreased requirement for oral steroid use. Good communication from health care providers is important in encouraging patients to follow a proper asthma plan and patient compliance is improved with ease of medication use, which will hopefully correlate with improved outcomes.

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