

ORIGINAL RESEARCH ARTICLE

Experience with Inhalational Corticosteroids in a Tertiary Care Center

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ABSTRACT

Inhalational steroids are steroids with high topical and low systemic activity. They are prescribed for Bronchial asthma and COPD (chronic obstructive pulmonary disease). This study was aimed to find out the commonly used inhalational corticosteroids. A cross sectional observational study was planned out. The protocol was approved by Institutional Human Ethics Committee. 60 was the estimated sample size. All outpatients who were taking inhalational corticosteroid were included. The data was collected retrospectively. Details on usage of inhalational corticosteroid were recorded using case record form. Personal details like, name, Date of Birth, telephone number and address were not taken. Confidentiality of patient details was maintained. The collected data was analysed statistically. Out 60 patients using inhalational corticosteroids 55% were males and 45% were females. Maximum (28%) patients using inhalational steroids were in the age group of 61 -80 years. Among these patients 95% of patients were non smokers and 5% were smokers. Fluticasone + Salmeterol combination was used in 60 %. 65% of patients were suffering from Bronchial asthma. 26% were suffering from COPD. And 9 % were suffering from allergic rhinitis.

Key words: Inhalational steroids, experience, tertiary care center

INTRODUCTION

Inhalational steroids are steroids with high topical and low systemic activity. Airway inflammation is present in Bronchial asthma. It has been suggested that inhaled steroids should be prescribed when inhaled β_2 agonists are required almost daily. They suppress bronchial inflammation, increase peak expiratory flow rate, decrease the need for rescue β_2 agonist inhalation and prevent episodes of acute asthma ^[1]. Spacers and gargling after each dose of inhalation may reduce the side effects. Asthma exacerbations were statistically no more likely among individuals who reduced ICS (Inhaled corticosteroids) compared to those who maintained their ICS dose, supporting current guidelines which recommend decreasing ICS by 50% after a period of asthma stability ^[2]. There is increased usage of inhaled corticosteroids as single agents or combination products for treating COPD ^[3]. Long-acting bronchodilators in combination with inhaled corticosteroids (ICS) are recommended to decrease the risk of recurrent exacerbations in patients with Global initiative for

chronic Obstructive Lung Disease (GOLD) stage 3-4 COPD ^[4]. In adults with asthma that is inadequately controlled by predominantly low-dose ICS with significant bronchodilator reversibility, the addition of LABA (Long acting β_2 agonist) to ICS is modestly superior to the addition of long acting Leukotriene antagonist in reducing oral corticosteroid-treated exacerbations⁵. In steroid-naive patients with mild to moderate airway obstruction, the initiation of inhaled corticosteroids in combination with long-acting beta2-agonists does not significantly reduce the rate of exacerbations over that achieved with inhaled corticosteroids alone⁶. So this study was aimed to find out the commonly used inhalational corticosteroids.

METHODOLOGY

A cross sectional observational study was planned out. The protocol was approved by Institutional Human Ethics Committee. 60 was the estimated sample size. All outpatients who were taking inhalational corticosteroid were included. The

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data was collected retrospectively. Details on usage of inhalational corticosteroid were recorded using case record form. Personal details like, name, Date of Birth, telephone number and address were not taken. Confidentiality of patient details was maintained. The collected data was analysed statistically.

RESULTS

- Out 60 patients using inhalational corticosteroids 55% were males and 45% were females (**Figure 1**).
- Maximum (28%) patients using inhalational steroids were in the age group of 61 -80 years. 25% of patients were in the age group of 51-60years. 16% of the patients were in the age group 21 -30 years. 15% of patients were in the age group of 11-20 years and 1-10 years. 1% of patients were in the age group of 30 -50 years (**Figure 2**).
- Among these patients 95% of patients were non smokers and 5% were smokers (**Figure 3**).
- Fluticasone + Salmeterol combination was used in 60 %. Budesonide + Formoterol combination was used in 20% of patients. Fluticasone alone was used in 13% of patients. Budesonide alone was used in 4% of patients. Fluticasone + Budesonide combination was used in 3 % of patients (**Figure 4**).
- Among these 60 patients 65% of patients were suffering from Bronchial asthma. 26% were suffering from COPD. And 9 % were suffering from allergic rhinitis (**Figure 5**).

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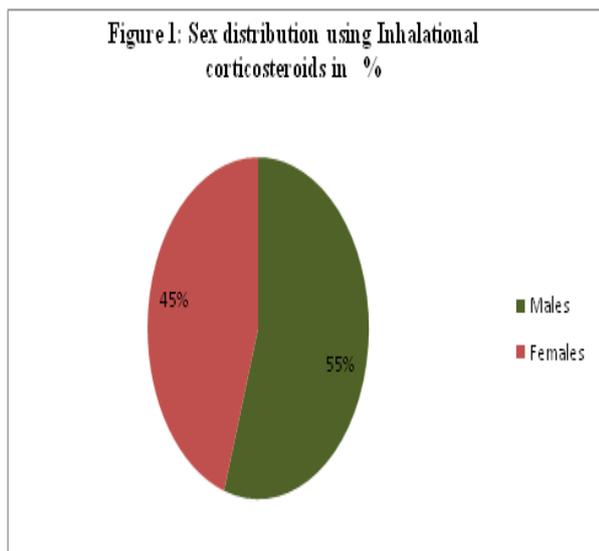


Figure 1: Sex distribution using Inhalational corticosteroids in %

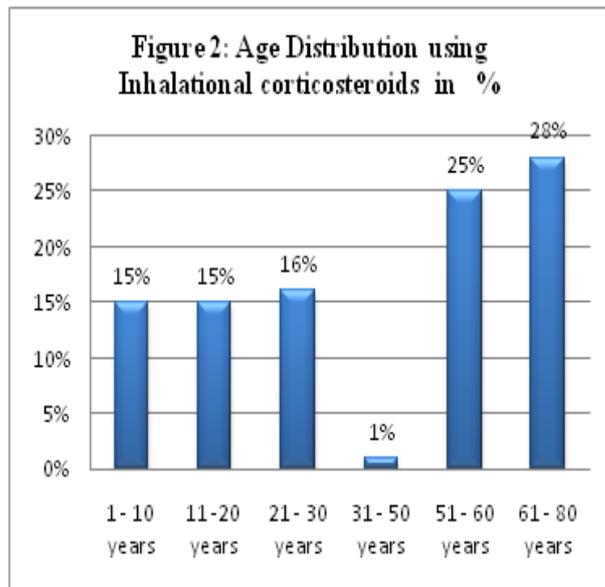


Figure 2: Age Distribution using Inhalational corticosteroids in %

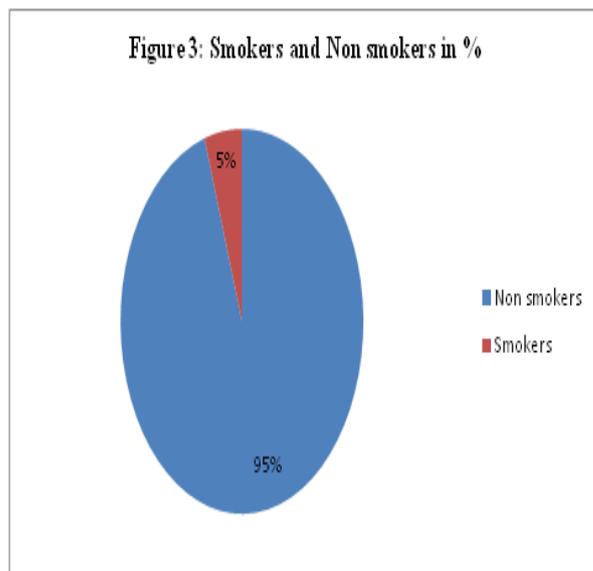


Figure 3: Smokers and Non smokers in %

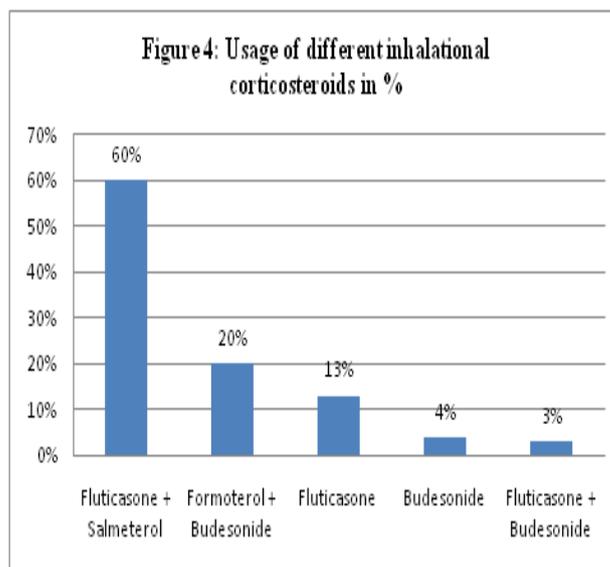


Figure 4: Usage of different inhalational corticosteroids in %

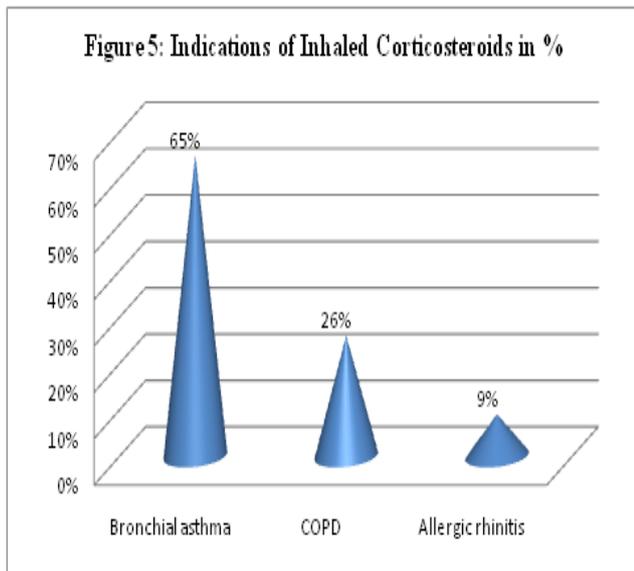


Figure 5: Indications of Inhaled Corticosteroids in %

DISCUSSIONS

- Usage of Inhaled Corticosteroids was more in Males compared to females.
- ICS was most commonly used in the age group of 61-80 years.
- Non smokers were using ICS than smokers.
- Fluticasone + Salmeterol combination was used more than Budesonide + Formoterol combination.
- Fluticasone was used more than Budesonide.
- ICS was commonly used in Bronchial asthma than COPD.

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