

Profile of adult patients hospitalized for asthma exacerbation

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Abstract

A variable proportion of patients presenting to the emergency department (ED) with acute asthma require admission to hospital. Previous studies have identified select factors associated with admission following ED presentation. However, patients hospitalized for AEs are highly heterogeneous and remain largely unexplored. This review discusses current aspects on the pathogenesis and pathophysiology of acute severe asthma exacerbations and provides the current perspectives on the management of acute severe asthma attacks in the emergency department and the intensive care unit.

Keywords: Asthma Exacerbation; Epidemiological Profile; Factors associated, Inhaled Treatment.

1. Introduction

Asthma is a chronic disease, whose medico-economic impact and prognosis are largely burdened by the occurrence of acute exacerbations. The main aim of our study is to determine the phenotypic profile of asthma patients requiring emergency care because of an acute exacerbation of their asthma.

2. Methods

A review was retrospectively carried out on all admissions of patients over 18 years old due to exacerbation of asthma occurring in our hospital between the years 2021 and 2023. Epidemiological, clinical, para-clinical, therapeutic and evolutionary characteristics of patients hospitalized for asthma exacerbation were recorded.

3. Results

Our analysis included 88 patients with acute asthma exacerbations. Phenotypic characteristics associated with emergency department use for asthma exacerbation were female gender, active or weaned smoker, overweight or obese, Lack of adapted background treatment and lack of pneumological follow-up. The mean age of patients was 39 years. The factors jointly associated with the frequent exacerbating phenotype and the severity of the attack are age over 45 and socio-economic precariousness. The presence of background inhaled treatment and pneumological follow-up is a protective factor for crisis severity.

Therapeutic management in the emergency department is in line with current recommendations, with a combination of short-acting bronchodilators and systemic corticosteroids used in 80% of cases. In contrast, inhaled background treatment with ICS was prescribed in only 42.1% of patients after their asthmatic exacerbation, and a follow-up pneumological consultation was proposed in only 28.2% of cases.

4. Conclusion

Asthma patients without pneumological follow-up or disease-modifying therapy represent the vast majority of emergency department patients with acute asthma exacerbations, and both these factors are associated with exacerbation severity. It is therefore essential to start inhaled background treatment of asthma with ICS as soon as the patient leaves the emergency department, and to organize a short-term pneumological follow-up consultation, in order to optimize and coordinate the management of this chronic disease.

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