Impact of dupilumab on healthcare resource utilization in severe asthma: Real-World Evidence in Colombia

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INTRODUCTION

Severe asthma is one of the most prevalent chronic respiratory diseases worldwide, characterized by persistent symptoms and frequent exacerbations, leading to substantial healthcare resource utilization (HCRU) and economic burden.

OBJECTIVE

To describe the impact of dupilumab treatment on HCRU in Colombian patients with severe asthma.

METHODS

- Retrospective observational multicentric study that included adults with severe asthma (defined as asthma requiring high doses of inhaled corticosteroids plus a second controller), from April 2019 to May 2023, in five Colombian centers.
- Data were obtained between 12 months before the dupilumab prescription date (index date) and 25 months later (follow-up period).
- The collected data were classified into six follow-up intervals (2-4, 5-7, 8-10, 11-13, 14-18, and 19-25 months).
- Annual exacerbation rate, annual emergency room (ER) visit rate, annual hospitalization rate, intensive care unit (ICU) admissions and oral corticosteroid (OCS) consumption are reported.

POSTER HIGHLIGHT: The administration of dupilumab resulted in marked reduction of asthma exacerbations, emergency room visits, hospitalization rates and OCS prescriptions reflecting the positive impact on HCRU.

Figure 1: Annualized Exacerbation Rate

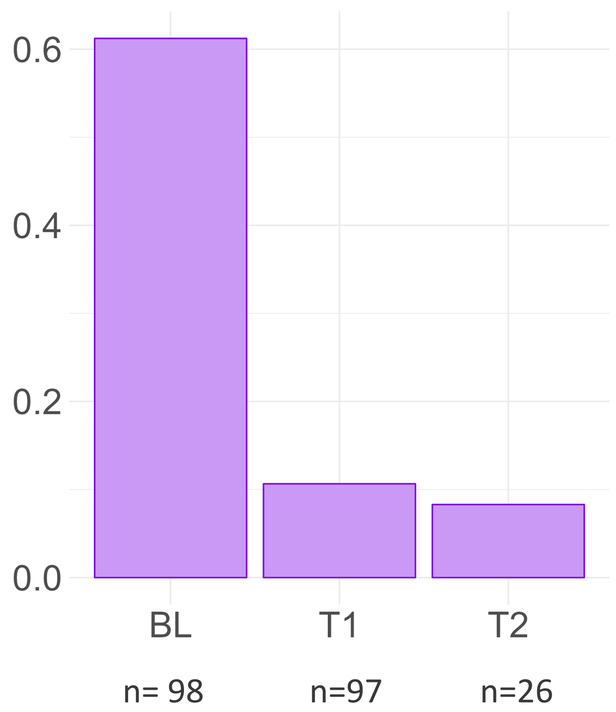


Figure 2: Annualized ER Visit Rate

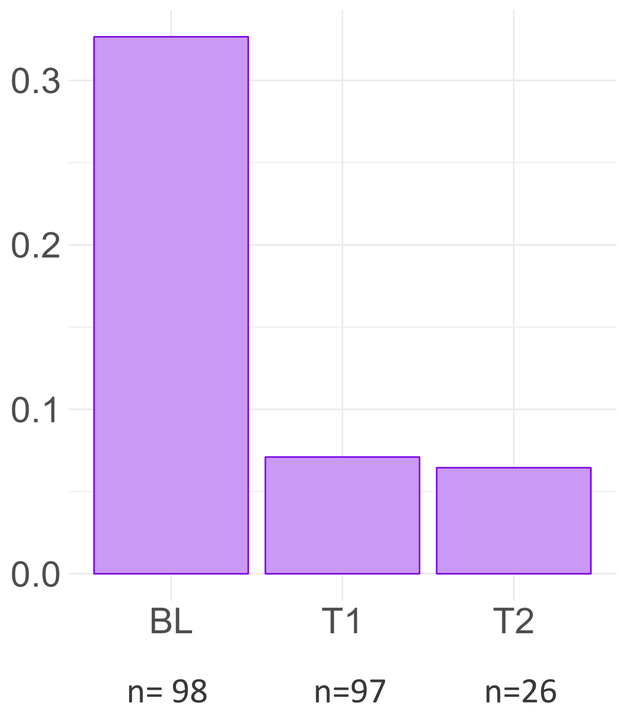
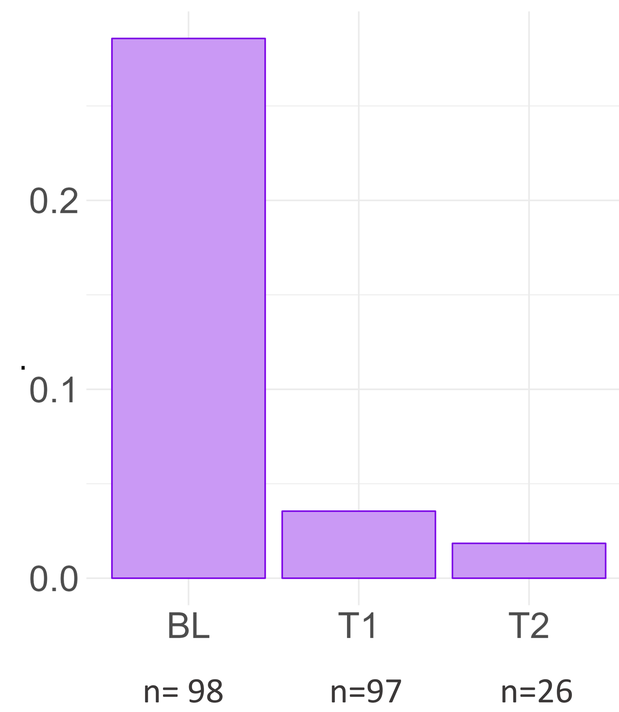


Figure 3: Annualized Hospitalization Rate



RESULTS

The study enrolled 98 patients with median age of 50 years, of whom 74.5% (n=73) being women. At baseline, the annual exacerbation rate (Figure 1) was 0.61 ± 1.45, which decreased to 0.11 ± 0.54 (reduction of 82%) during the first year and 0.08 ± 0.20 (reduction of 86.9%) after two years of follow-up. Moreover, the annualized ER visit rate (Figure 2) and hospitalization rate (Figure 3) decreased by 81.8% and 93.1%, respectively, after 24 months of dupilumab initiation. At baseline, ICU admissions were documented for five patients (5.1%); however, following the initiation of dupilumab, only one ICU admission was reported within the first year.

Patients requiring OCS prescriptions significantly decreased from 20.4% at baseline to 2.5% before completing the first year of treatment (8-10 months) and its consumption remained lower during the 2-year follow-up period compared to baseline.

CONCLUSIONS

By significantly reducing asthma exacerbation rates, dupilumab can lower overall HCRU, including the use of OCS and the frequency of ER visits, hospitalizations, and ICU admissions. These results highlight the dupilumab's effectiveness in managing severe asthma and its potential to reduce the disease clinical and economic burden in Colombia.

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