

Treatment of Eosinophilic Esophagitis: Adherence, Response, and Events Effects

Alejandro Raúl Gratacós Gómez, Alberto Palacios Cañas, Jaime Vinicio Meneses Sotomayor, Miriam Clar Castelló, Stephanie Bracamonte, Alba Extremera Ortega, Jesus M^a Borja Segade and Elisa Gómez Torrijos*

Allergy Section, Hospital General Universitario, C/ Obispo R, Torija s/n, Ciudad Real, CP, Spain

***Corresponding Author:** Elisa Gómez Torrijos, Allergy Section, Hospital General Universitario, C/ Obispo R, Torija s/n, Ciudad Real, CP, Spain.

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Abstract

Eosinophilic esophagitis (EoE) is a chronic disease with symptoms and histological features that usually disappear with treatment.

In EoE, it is challenging to locate works that evaluate adherence to treatment, long-term efficacy, and safety in the literature. Therefore, this work aims to study commitment to therapy, effectiveness, and security.

A prospective, descriptive, and observational study in patients with EoE. Adherence to the initial treatment, when it was not interrupted for more than one week/month until it subsided. Adherence to maintenance treatment when it was not interrupted for more than 1 month/year. Response to treatment when the symptoms and the histology had remitted. Adverse effects were detected in reviews performed at 4, 8, and 12 months and 1 revision/year.

386 patients had EoE. The mean age: 35, 75% male, 83% atopic, 82% respiratory allergy, 11% atopic dermatitis, and 31% food allergy. The time of evolution of the symptoms was 6 years and 8 months, with 87% dysphagia, 27% impactions, and 12.5% other signs of esophageal dysfunction-1/3 of patients' nonadherence. Initial treatment, 2/3 swallowed topical fluticasone responded, and about half responded to diet therapy or proton pump inhibitors. During maintenance treatment, adherence decreased in the group with diet therapy, and adverse effects were few, mild, and quickly resolved.

Keywords: Eosinophilic Esophagitis; Treatments, Adherence; Response; Adverse Events

Introduction

Eosinophilic esophagitis (EoE) is a chronic disease with clinical, endoscopic, and histological features that usually disappear when treatments induce remission [1]. In untreated patients, persistent EoE inflammation may progress to fibrostenosis, giving place to strictures and complications requiring urgent treatment [2]. Evidence indicates that long-term maintenance therapy may decrease the risk of esophageal stricture, food bolus impaction, and the need for dilation. Dietary and pharmacological as proton pump inhibitors (PPIs), swallowed topical corticosteroid therapies are adequate for the induction of clinical and histological remission of this disease [3]. However, more works that evaluate adherence, long-term efficacy, and safety still need to be performed [1].

Objective of the Study

For this reason, the objectives of this study are: To study adherence to therapy (pharmacological and dietary), efficacy, and safety.

Methods

A prospective, descriptive, and observational study in patients diagnosed with EoE (symptoms of esophageal dysfunction and swallowing disorders and at least one of the esophageal biopsies with 15 eosinophils/high power field in an Allergology service between 2012-2020.

Adherence to the initial treatment was considered when it was not interrupted for more than one week/month until the EoE subsided. Adherence to maintenance treatment is considered when it has not been interrupted for more than 1 month/year. Response to treatment was considered when the symptoms had remitted and had < 15 eosinophils per high-power field. We detected adverse effects (AE) in reviews performed at 4, 8, and 12 months and later, 1 revision/year until 2020.

Variables studied: Age, sex, atopy, adherence and response to treatment, PPIs, swallowed topical fluticasone (STF), food elimination diet (FED), and adverse events (AE).

This study was carried out by the principles of the Declaration of Helsinki and was approved by the Clinical Research Committee of the hospital. Previously, we obtained informed consent in writing from the patients or their guardians to publish their data.

A descriptive statistical study was carried out using the advanced functionalities for statistical analysis of the IBM-SPSS software. Qualitative variables are expressed as absolute frequencies and quantitative by the arithmetic mean.

Results

386 patients were diagnosed with EoE from 2007 to 2020. The mean age was 35, and 11% had < 15 years. 75% were male, 83.5% were atopic, 82% had a respiratory allergy, atopic dermatitis 11%, and 31.5% had a food allergy. The time of evolution of the symptoms until the diagnosis was 6 years and 8 months 87% had dysphagia, 27% had impactions, and 12.5% had other signs of esophageal dysfunction.

The results on adherence, response to treatment (drugs and FED), and EAs with your resolución are shown in table 1.

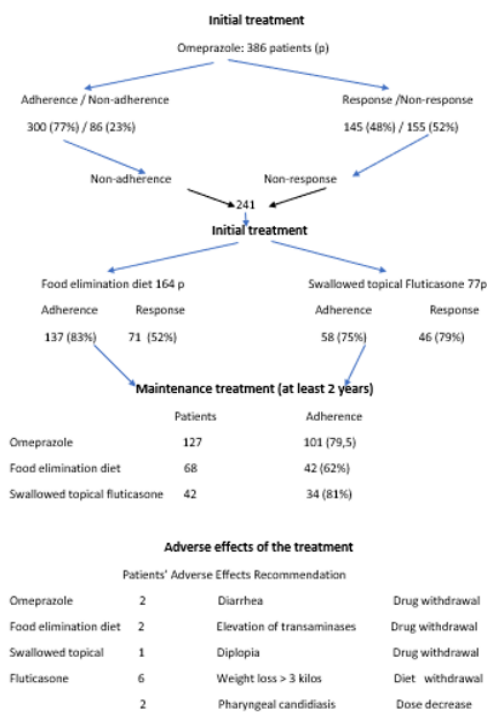


Table 1: Eosinophilic esophagitis: response to initial and maintenance treatment (at least 2 years) and adverse events.

Discussion

Adherence to treatment in EGID is complex and multifaceted, with nonadherence varying across treatments. Nonadherence prevalence estimates are 50% in children and 88% in teenagers [4].

Truly understanding patient adherence to a prescribed treatment, whether it be medications, diet, or lifestyle, is multifactorial and complex [4]. The negative feedback from symptoms may be a key driver in adherence. If an individual experiences severe anaphylaxis after exposure to a food allergen, that individual would probably be much more adherent to avoiding it. In EoE, the dysphagia and risk of having a food impaction may act as negative feedback for these patients. Still, the difference between EoE with IgE-mediated allergy is that exposure to food allergens typically does not immediately manifest with symptoms [4].

PPI treatment in Spain and other countries were effective in half of the EoE patients. This treatment was effective in half of the EoE patients in a study in Denmark [5]. Our results were also similar; for this reason, PPIs are often the first drug of choice in treating EoE.

The American Gastroenterological Association, Joint Task Force on Allergy and Immunology (AGA-JTF) guidelines for EoE recommend PPIs therapy for EoE based on reports of reductions in histologic disease features from 42% in observational studies. However, there is heterogeneity in responses to PPIs [6]. In our research, the answer to PPIs (omeprazole) was somewhat higher, precisely 48%.

Our patients' adherence to maintenance treatment was high during the first year since 77% adhered to the prescribed treatment, while in another cohort of patients, it was 58% [5]. If we break down adherence according to the type of the prescribed treatment, in our cohort, adherence to dietary treatment was more than adherence to pharmacological therapy (83%/75%). These findings are similar to those obtained by a group of researchers where the patitreatedatred with drugs appeared less adherent to prescribed treatment than the treatment with the FED diet (35.1% vs. 41.8%). In said study, independent factors associated with poor treatment adherence were age < 40 years, longer disease duration in years, severe symptoms, and beliefs of low need [7].

Factors influencing FED adherence during long-term maintenance with FED therapy include diet effectiveness, social situations, and diet-related anxiety. Despite the lower-than-expected long-term for the upkeep of a FED, the majority would recommend FED as a treatment to other EoE patients [8].

Reported STF adherence rates were relatively high among pediatric patients with EoE. Specifically, adolescents had significantly lower adherence rates than younger children. This may be related to an adolescent's struggle with independence and self-esteem (these findings are consistent with other chronic pediatric conditions such as asthma) [9].

Although evidence supporting maintenance therapy is limited, experts advocate treatment for most patients [10]. Maintenance drug therapy adherence was similar (around 80%) and lower for FED. Adverse effects [10] in our study were few and mild, both with dietary and drug treatment.

This study has limitations since the time with maintenance treatment is highly variable from one patient to another, so some had only been on maintenance treatment for 1 - 2 years, and it has the strength that other patients have performed therapy until 10 - 12 years.

Conclusion

In conclusion, 1/3 of patients with EoE do not adhere to treatment. In the initial treatment, 2/3 responded to STF, and about half responded to therapy with FED or PPIs. During maintenance treatment, adherence decreased in the group treated with FED, and adverse effects were few, mild, and quickly resolved.

Declaration of Conflict of Interest

All authors who have contributed to this work declare that they have NO conflicts of interest.

All listed authors saw and approved this manuscript before of the submitted to this journal.

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Authors Contribution

Gratacos Gomez and Gomez Torrijos conceived the study, wrote the protocol, recruited the bibliography, and thoroughly reviewed the manuscript before submitting it.

Clar Castelló and Palacios Cañas were responsible for the recruitment and clinical evaluations of the patients.

Borja Segade and Bracamonte were responsible for data collection and statistical analysis.

Meneses Sotomayor and Extremera Ortega wrote this manuscript and translated it into English after it was reviewed and approved by all the authors.

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