Eosinophilic Esophagitis in Cow’s Milk and Egg Oral Immunotherapy (OIT)

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1. INTRODUCTION

Oral immunotherapy (OIT) has become an alternative treatment for patients with persistent cow’s milk (CM) and egg allergy. Data about long-term safety are still unknown. Eosinophilic esophagitis (EoE) has emerged as a new adverse event of OIT, with a reported incidence of 2.9%.

Eosinophilic esophagitis incidence was similar in both groups:
- During the observation period, 277 CM-OIT and 332 egg-OIT were performed.
- Eighteen patients developed EoE (incidence 3.2%), being higher for patients with CM allergy (3.6%) than egg allergy (2.5%) (p=0.6) (Figure 1).
- One patient had undergone both, CM and egg-OIT.
- All patients developed EoE during the maintenance period (Table 1).

Food impaction was more frequent onset symptom of EoE in Egg-OIT
CM-OIT patients most frequent onset symptom of EoE was dysphagia. Choking and food impaction, however, were more frequent in Egg-OIT patients (Figure 2).

Food impaction more frequent in Egg-OIT

Most children had proton-pump inhibitors as an initial treatment, only 1 patient starting with elimination diet or glucocorticoids. Only 3 patients had elimination diet, avoiding the OIT food, as their final treatment (Fig. 3).

2. METHODS

Retrospective study on the incidence of EoE in pediatric patients treated with CM and egg-OIT in a tertiary level hospital in Madrid, Spain, between 2007 and 2019. Demographic and clinical data were analyzed.

3. RESULTS

Elimination Diet
Proton pump Inhibitors
Swallowed Glucocorticoids

Figure 1. Eosinophilic esophagitis incidence in CM and Egg OIT patients.

Table 1. Demographic characteristics. Figure 2. EoE onset symptoms in CM and Egg-OIT.

Table 2. Clinical characteristics during OIT.

4. CONCLUSIONS

EoE is a rare adverse event that mainly occurs during the OIT maintenance period, even years after it has been reached.

Its incidence seems to be similar for CM and egg-OIT.

Food impaction at EoE onset was more frequent in egg-OIT patients.

Eosinophilic esophagitis has a good prognosis in this subset of patients, with most children maintaining OIT treatment.