

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%.

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

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).

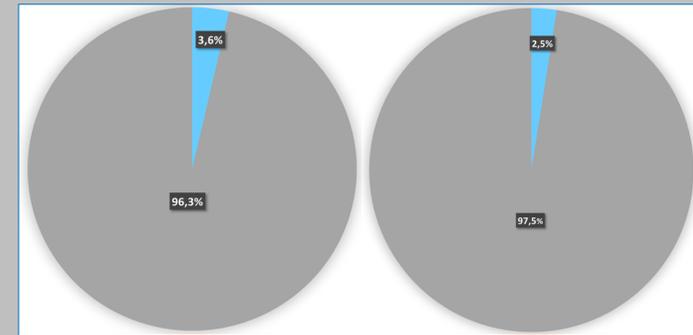


Figure 1. Eosinophilic esophagitis incidence in CM and Egg-OIT patients

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).

All patients responded to treatment
 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).

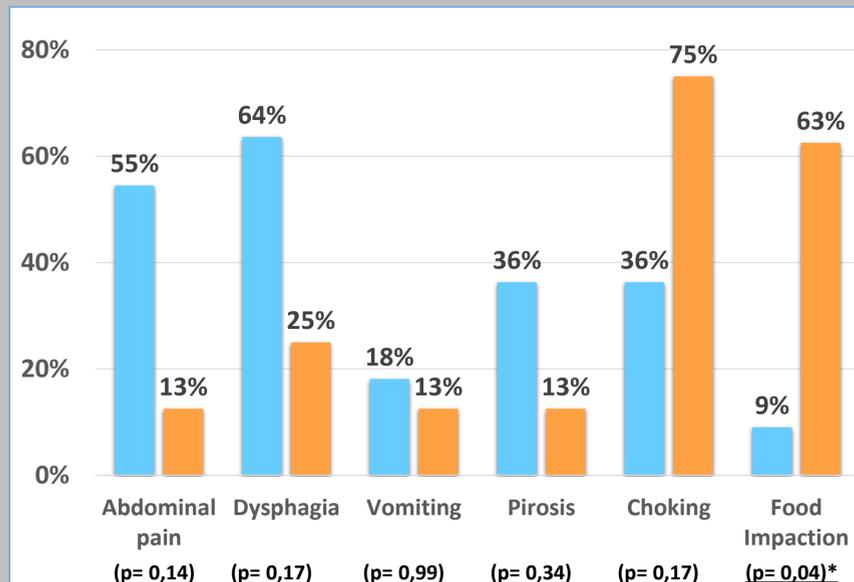


Figure 2. EoE onset symptoms in CM and Egg-OIT

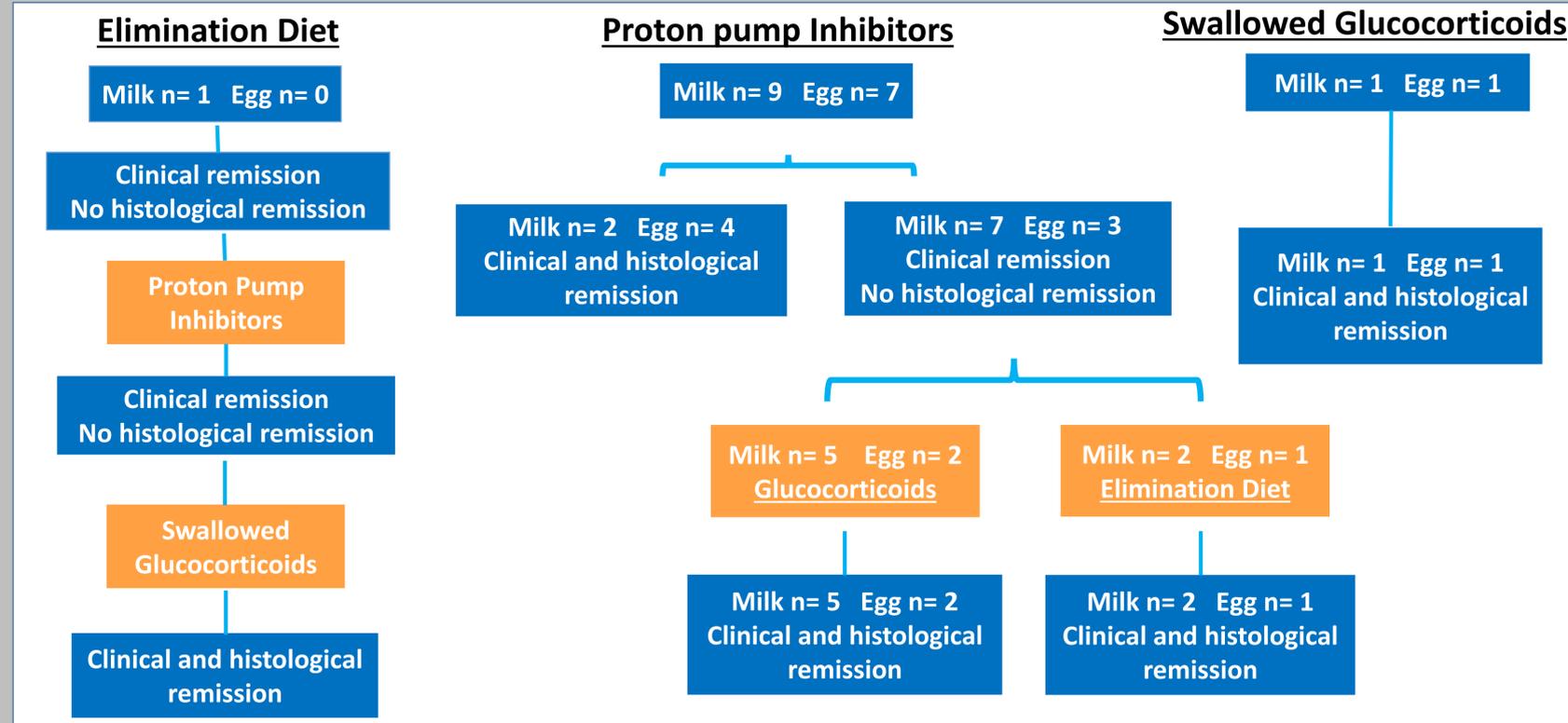


Figure 3. Eosinophilic esophagitis treatment in CM and Egg-OIT patients.

4. CONCLUSIONS

- 1** EoE is a rare adverse event that mainly occurs during the OIT maintenance period, even years after it has been reached.
- 2** Its incidence seems to be similar for CM and egg-OIT.
- 3** Food impaction at EoE onset was more frequent in egg-OIT patients.
- 4** Eosinophilic esophagitis has a good prognosis in this subset of patients, with most children maintaining OIT treatment.

Table 1. Demographic characteristics.

	CM-OIT	EGG-OIT
Age at EoE diagnosis (years)	Median 11 (range 6 - 21)	Median 12 (range 6 - 21)
Sex	Male: 8 (72,7 %) Female: 3 (27,3 %)	Male: 5 (62,5 %) Female: 3 (37,5 %)
Other atopic diseases	Asthma: 9 (81,8%) Rhinoconjunctivitis: 7 (63,6%) Atopic dermatitis: 1 (9,0%)	Asthma: 7 (87,5%) Rhinoconjunctivitis: 6 (75%) Atopic dermatitis: 3 (37,5%)
Other food allergies	Egg allergy: 6 (54,5%) Other food allergies: 2 (18%)	Milk allergy: 4 (50%) Other food allergies: 5 (62,5%)
Time from OIT maintenance to EoE development (years)	Median 2.8 (range 0 - 7,5)	Median 3 (range 0 - 5,7)
Time from EoE symptoms to EoE diagnosis (months)	Median 37 (range 1 - 107)	Median 36 (range 0 - 84)