Brief report

Real-world assessment of anaphylaxis and eosinophilic esophagitis with 12 SQ house dust mite SLIT-tablet sublingual immunotherapy

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Background: Sublingual immunotherapy (SLIT) with 12 SQ house dust mile SLIT-tablet (HDM SLIT-tablet) for dust mite–induced perennial allergic rhinitis is reported as effective and safe. Although serious allergic reactions (SARs) and eosinophilic esophagitis (EoE) have infrequently occurred under trial conditions, the safety of HDM SLIT-tablet challenge under real-world conditions is unknown.

Objective: Our aim was to estimate the incidence of SARs and EoE due to HDM SLIT-tablet challenge.

Methods: Through use of administrative data from Kaiser Permanente Southern California, this prospective observational study identified patients newly administered HDM SLIT-tablet with follow-up until SLIT discontinuation or end of study. Suspected cases of SARs and EoE were detected by using *International Classification of Diseases, 10th Revision,* diagnosis and Current Procedural Terminology procedure codes and medication dispensing records. A 3-member clinical review committee of allergists adjudicated suspected reactions. The incidence rate of confirmed SARs and EoE per 1000 person years of exposure were determined.

Results: A total of 521 patients (93.9% adult and 6.1% pediatric) were exposed to HDM SLIT-tablet challenge from January 2018 through May 2023, for 440.4 person years of exposure. The patients' average age (SD) was 39.3 (14.1) years, 58.7% were female, 44.3% were non-Hispanic White, 40.3% had asthma, and 15.0% had gastroesophageal reflux disease. A SAR occurred in 1 adult patient, and during initial HDM SLIT-tablet challenge, SARs occurred in 2 pediatric adolescents, for an overall incidence of 6.8 SARs per 1000 patient years (95% CI = 2.2-21.1). EoE occurred in 1 adult patient, for an overall incidence of 2.3 cases of EoE per 1000 patient years (95% CI = 0.3-16.1).

Conclusions: This real-world study demonstrated that SARs and EoE were infrequent events with HDM SLIT-tablet use, supporting the safety of HDM SLIT-tablets and need for physician supervision with initial challenge. (J Allergy Clin Immunol Global 2024;3:100250.)

Key words: *Eosinophilic esophagitis, 12 SQ HDM SLIT-tablet, serious allergic reactions, sublingual immunotherapy, real-world study*

INTRODUCTION

Allergic rhinoconjunctivitis induced by house dust mites (HDMs) of the genus *Dermatophagoides* and its 2 species, *Dermatophagoides pteronyssinus* and *Dermatophagoides farinae*, which are a leading cause of perennial allergic rhinitis, occurs in approximately 60 million persons in the United States.[1,2] The 12 SQ HDM sublingual allergy immunotherapy tablet (HDM SLIT-tablet) (ODACTRA, ALK, Horsholm, Denmark) is a US Food and Drug Administration–approved allergen extract indicated for sublingual immunotherapy (SLIT) in patients aged 18 to 65 years and in adolescents aged 12 to 17 years with IgE-mediated HDM-induced allergic rhinitis with and without conjunctivitis.[3] Although studies have confirmed its efficacy and safety,[3] the HDM SLIT-tablet label warns of the potential for development of serious allergic reactions (SARs), which may be life-threatening, and eosinophilic esophagitis (EoE).

Anaphylactic reactions (as defined by the World Allergy Organization) are infrequent with SLIT, occurring at an estimated frequency of 1 case per 100 million administrations[4,5]; deaths have not been reported. In 11 HDM SLIT trials involving 3930 patients receiving the active drug and 2246 placebo-treated patients, epinephrine administration was used in 8 patients treated with HDM SLIT and in 5 patients treated with placebo, with most instances of epinephrine use occurring within the first week of treatment.[6] Recently, the overall rate of anaphylaxis in all of the SLIT-tablet trials was reported to be 0.02% (2 of 8200 subjects) with SLIT-tablet and 0.01% (1 of 7033 subjects) with placebo.[7] EoE, a rare disease with an estimated prevalence of 56.7 per 100,000 persons in the United States,[8] has been associated with SLIT.[9] Two

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Abbreviations used

EoE: Eosinophilic esophagitis
GERD: Gastroesophageal reflux disease
HDM: House dust mite
HDM SLIT-tablet: 12 SQ HDM SLIT-tablet
KPSC: Kaiser Permanente Southern California
SAR: Serious allergic reaction
SLIT: Sublingual allergy immunotherapy

adult patients (2 of 4175), 1 of whom was treated with a dose of 12 SQ-HDM and 1 of whom was treated with a dose of 6 SQ-HDM),[10] and 1 adolescent (see https://www.fda.gov/media/165167/download) were found to develop EoE while receiving HDM SLIT-tablet treatment.

Given that the published incidences of SAR and EoE in response to HDM SLIT-tablet have been from clinical trials, there is an unmet need to determine the corresponding incidences in the real-world to better document the overall safety of HDM SLIT-tablet use. The purpose of the present study was to determine the incidences of SAR and EoE with HDM SLIT-tablet challenge in a nontrial setting in a large health maintenance organization with diverse membership to increase generalizability.

RESULTS AND DISCUSSION

Study design

This prospective observational study determined SAR and EoE in all patients of Kaiser Permanente Southern California (KPSC) in whom HDM SLIT-tablet use was started on the basis of shared clinical decision making by them and their allergist.

Cohort identification and characteristic

A total of 521 patients of KPSC with HDM allergy were challenged with HDM SLIT-tablet (index date) from January 2018 through May 2023 and then followed for the development of SARs and EoE until after the last prescribed dose of HDM SLIT-tablet, death, disenrollment from the health plan, or end of the study, whichever came first. The date of the last dose was estimated as 30 days after the final medication supply had been dispensed.

Demographics and comorbidities were determined at the index date and in the prior year. At the index date, the average (SD) age of the 521 patients (93.9% adult and 6.1% pediatric) was 39.3 (14.1) years, 58.7% were female, and 44.3% were White patients (Table I). The pertinent diagnoses using the *International Classification of Diseases, 10th Revision,* codes in the cohort were as follows: allergic rhinitis, 97.9%; asthma, 40.3%; chronic rhinitis, 32.6%; gastroesophageal reflux disease (GERD), 15.0%; food allergy, 7.9%; atopic dermatitis, 6.1%; and nasal polyposis. 2.7% (Table I). The level of exposure to the HDM SLIT-tablet was 440.4 person years. The duration of HDM SLIT-tablet use is depicted in a Kaplan-Meier survival curve (Fig 1). Approximately half of the patients discontinued treatment by 6 months (Fig 1) The median HDM SLIT-tablet supply was 6 months in adult patients and 4 months in pediatric patients (Table I).

Definition of SAR

A SAR was defined conceptually as a life-threatening allergic event requiring emergency medical intervention (eg, anaphylaxis) or an allergic event resulting in acute respiratory compromise that meet seriousness criteria (see the Online Repository at www.jaci-global.org).

Adjudicated adverse reactions

Cases for adjudication with a possible SAR or EoE were identified by using *International Classification of Diseases, 10th Revision*, diagnosis and procedure codes (Current Procedural Terminology) and medication dispensing records from administrative claims data (see the Online Repository at www.jaci-global.org). An independent clinical review committee comprising 3 KPSC allergists adjudicated 31 possible reactions to HDM SLIT-tablet, of which 9 were for a possible SAR and 22 were for possible EoE. A positive adjudicated reaction required at least 2 positive votes (Fig 2). Adverse events were graded as mild (grade 1), moderate (grade 2), severe (grade 3), life-threatening (grade 4), and fatal (grade 5) based on the National Cancer Institute Guidelines (see the Online Repository at www.jaci-global.org).

SARs. Nine cases were adjudicated for a possible SAR that was identified in connection with any hospitalization, emergency department care, urgent care, anaphylaxis coding, or epinephrine injection. Three cases were adjudicated as positive for SARs (Tables II), 2 of which (both in adolescents) occurred during the first HDM SLIT-tablet challenge, for an overall incidence of 6.8 SARs per 1000 person years (95% CI = 2.2-21.1) (Table III). The severity of the SARs in the 2 adolescents were graded 2 in patient 4-001 and graded 2 and 4 in patient 8-001. These 2 events needing epinephrine resolved quickly after treatment, with the patients discharged within 1 hour and no need for an emergency department visit. The other SAR adjudicated as being of grade 2 severity (based on majority vote) occurred in an adult with wheezing who sought urgent care (patient 7-001) and needed only nebulizer bronchodilator treatment. A full description of the event is described in the Online Repository (at www.jaci-global.org).

In total, epinephrine was used for reactions to HDM SLIT-tablet in 2 of 521 members of the cohort (0.38% [95% CI = 0.05%-1.38%]). No SAR occurred in the 65 patients (62 adult and 3 pediatric patients) dispensed auto-epinephrine less than a year from the initial dispensing of HDM SLIT-tablet.

EoE. A total of 22 cases were identified for adjudication of EoE from codes for GERD, upper gastrointestinal endoscopy findings, or gastrointestinal biopsy samples. One case (patient 1-003) was adjudicated as positive for EoE and assigned grades 1 and 2 severity, for an overall EoE incidence of 2.3 per 1000 person years (95% CI = 0.3-16.1) (Table III). Seventeen months after starting HDM SLIT-tablet treatment, the patient, who had no history of GERD or food allergy in the prior 9.5 years followed in the health plan, reported GERD and dysphagia. Esophageal biopsy revealed intraepithelial eosinophilia with up to 45 eosinophils per hpf, consistent with EoE.

On the basis of a literature review, this prospective observational study appears to be the first real-world examination to determine the safety of HDM SLIT-tablet use with respect to the development of SAR and EoE in all patients starting HDM SLIT-tablet use in a large health care organization. Of the 521 adult and

TABLE I. Characteristics of patient cohort treated with HDM SLIT-tablet

Patient characteristics	Adult patients (n = 489)	Pediatric patients (n = 32)	All patients (N = 521)
Demographics			
Age (y), mean (SD)	41.0 (12.8)	13.2 (3.3)	39.3 (14.1)
Female sex, no. (%)	295 (60.3)	11 (34.4)	306 (58.7)
Race/ethnicity, no. (%)			
Asian	64 (13.1)	5 (15.6)	69 (13.2)
Black	36 (7.4)	2 (6.3)	38 (7.3)
Hispanic	130 (26.6)	11 (34.4)	141 (27.1)
White	218 (44.6)	13 (40.6)	231 (44.3)
Other/unknown	41 (8.4)	1 (3.1)	42 (8.1)
Education of high school diploma or higher (geocoding), mean (SD)	87.1 (12.1)	85.5 (12.9)	87.0 (12.2)
Neighborhood household median income (geocoding), mean (SD)	$94,079 ($37,449)	$101,885 ($40,141)	$94,587 ($37,636)
Membership duration (y), mean (SD)	12.2 (11.7)	8.8 (3.8)	12.0 (11.4)
Insurance, no. (%)*			
Commercial	373 (76.6)	26 (81.3)	399 (76.9)
Medicaid	46 (9.4)	7 (21.9)	53 (10.2)
Medicare	25 (5.1)	0 (0)	25 (4.8)
Private pay	61 (12.5)	2 (6.3)	63 (12.1)
Obesity†	137 (28.0)	7 (21.9)	144 (27.6)
Allergy/immunology care, no. (%)	489 (100)	32 (100)	521 (100)
Allergic rhinitis, no. (%)	478 (97.8)	32 (100)	510 (97.9)
Chronic rhinitis, no. (%)	162 (33.1)	8 (25.0)	170 (32.6)
Comorbidities			
Charlson comorbidity index, mean (SD)	0.6 (0.8)	0.4 (0.5)	0.5 (0.75)
Asthma, no. (%)	196 (40.1)	14 (43.8)	210 (40.3)
Chronic sinusitis, no. (%)	146 (29.9)	5 (15.6)	151 (29.0)
GERD, no. (%)	76 (15.5)	2 (6.3)	78 (15.0)
Food allergy, no. (%)	37 (7.6)	4 (12.5)	41 (7.9)
Atopic dermatitis, no. (%)	28 (5.7)	4 (12.5)	32 (6.1)
Any urticaria, no. (%)	31 (6.3)	0 (0)	31 (6.0)
Pneumonia/flu/ALRI, no. (%)	24 (4.9)	3 (9.4)	27 (5.2)
Nasal polyps, no. (%)	14 (2.9)	0 (0)	14 (2.7)
Eosinophilic esophagitis, no. (%)	0 (0)	0 (0)	0 (0)
Utilization (patients with ≥1 prior year visits), no. (%)			
Hospitalization	11 (2.2)	0 (0)	11 (2.1)
Emergency department	81 (16.6)	7 (21.9)	88 (16.9)
Urgent care	198 (40.5)	15 (46.9)	213 (40.9)
HDM SLIT-tablet features			
Discontinued by study end, no. (%)	349 (71.4)	26 (81.3)	375 (72.0)
HDM SLIT-tablet supply (mo), median (IQR)	6.0 (4.0, 14.0)	4.0 (2.0, 9.5)	6.0 (4.0-13.0)
Duration of treatment to study's end (mo), no. (%)			
1-3	106 (21.7)	11 (34.4)	117 (22.5)
4-6	145 (29.7)	11 (34.4)	156 (29.9)
7-12	102 (20.9)	4 (12.5)	106 (20.3)
13-18	49 (10.0)	2 (6.3)	51 (9.8)
19-24	38 (7.8)	0 (0)	38 (7.3)
25-30	18 (3.7)	1 (3.1)	19 (3.6)
31-36	11 (2.2)	3 (9.4)	14 (2.7)
≥37	20 (4.1)	0 (0)	20 (3.8)

ALRI, Acute lower respiratory infection; *IQR*, Interquartile range.
*Patients may have more than 1 type of insurance.
†Body mass index cutoff for adult and pediatric patients.

pediatric patients challenged with HDM SLIT-tablet under physician supervision, 2 patients (both adolescents) had a SAR during their first challenge dose, which quickly resolved with epinephrine. Epinephrine use associated with HDM SLIT-tablet use occurred in only the 2 adolescents, resulting in a frequency of 0.38% in the present cohort (95% CI = 0.05%-1.38%), with its 95% CI covering the frequency of 0.20% patients (8 of 3930) reported to need epinephrine during 11 HDM SLIT-tablet clinical trials (P =.33 according to the Fisher exact test for difference).[6] SARs occurred in 3 patients, 2 being adolescents, for an overall SAR incidence of 6.8 per 1000 person years. The 3 SAR cases did not require an emergency department visit or hospitalization.

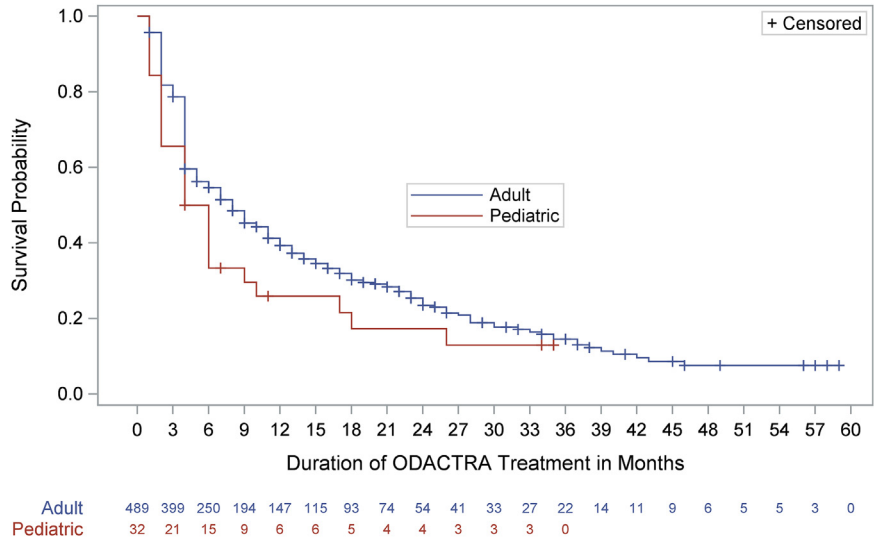

FIG 1. Kaplan-Meier survival curves for duration of HDM SLIT-tablet treatment for adult and pediatric patients.

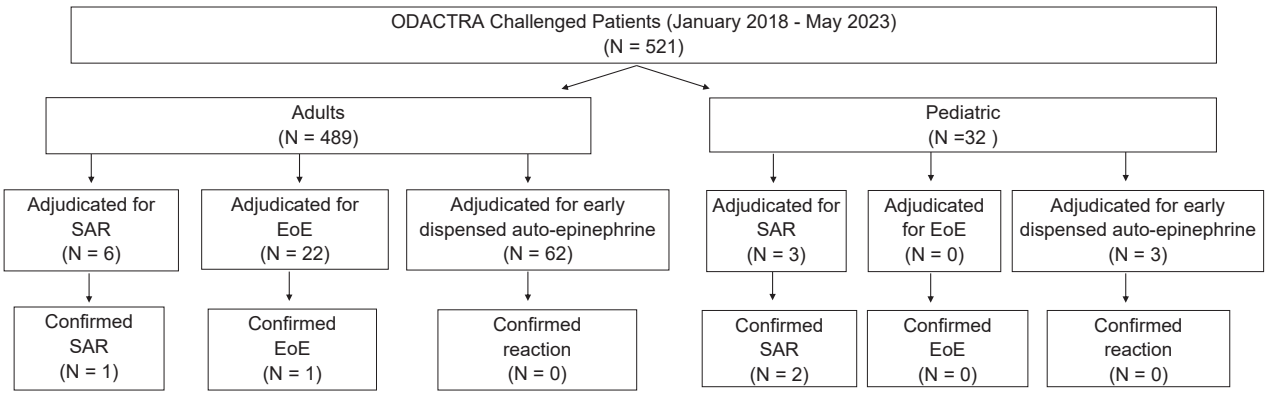

FIG 2. Outcomes of adjudicated SARs and EoE reactions during HDM SLIT-tablet treatment. Early-dispensed epinephrine was identified when epinephrine was dispensed within a year from the epinephrine dispensed at the time of HDM SLIT-tablet challenge.

The findings of the present study are generally consistent with the those of the recent report that used the standardized Medical Dictionary for Regulatory Activities query search tool to identify adverse reactions during HDM SLIT trials. Mild-to-moderate systemic reactions related to SLIT occurred in 15 of 2166 of patients challenged with HDM (0.7%) and 3 of 2548 patients receiving placebo (0.1%). Epinephrine administrations that physicians assessed as being related to SLIT therapy occurred in 4 of 2166 patients undergoing HDM therapy (0.2%) and in none of the patients given placebo. No anaphylaxis cases were reported in the group undergoing HDM SLIT.[11] Compared with the adult patients in the present study, the pediatric patients had a higher frequency of SARs; however, the cohort size of the pediatric cohort was very small, allowing only conjecture regarding the possible reasons.

One positive case of EoE in a subject with GERD was noted to be of mild-to-moderate severity, resulting in an overall EOE incidence of 2.3 per 1000 person years. Among the present cohort, the frequency of patients developing EoE was 1 in 521 (0.19% [95% CI = 0.00%-1.06%]) compared with the frequency observed in clinical trials (2 of 4175 [0.05%]).[10] As such, the frequency of EoE in the present study, as noted by its 95% CI, does not rule out that its underlying rate is similar to the rate of EoE in clinical trials (P = .30 according to the Fisher exact test for difference).

Allergic reactions requiring epinephrine during SLIT typically occur with the challenge dose but have been reported at 1 week[7] and also at 4 months,[11] which was observed in the present study. Given the low number of children and adolescents treated with the HDM SLIT-tablet in the present study, more data on the safety of HDM-SLIT in this age group are needed.

In a recent review, Cafone et al[12] reported 6 cases of biopsy-confirmed EoE in 5 patients on SLIT. Five of the reactions occurred in response to SLIT drops (3 to pollens only, 1 to combined pollen and dust mite, and 1 to dust mite only), and 1 occurred in response to a dust mite tablet formulation. The reactions occurred between 18 days and 16 months of starting SLIT, with 4 occurring within 2 months and 2 developing after 1 year. Formulations (liquid vs tablets) may matter because liquid is swallowed and may therefore come in contact with the entire

TABLE II. Summary of case review committee decisions (votes) on adjudicated cases of potential SARs and EoE in patients starting HDM SLIT-tablet

Pt No.	Age (y)/sex	Reactions during challenge	+ SPT/ RAST	Atopy	Time to event	EMR captured	SAR/EoE decisions: votes/ grades (1-5)
CRC reviews for SARs							
Positive adjudicated SAR reviews							
7-001	58/F	Negative	DM, G, T, W, C, D, M	AR, A	9 d	UC Mouth symptoms, wheeze, normal vital signs. Albuterol and ipratropium but no epinephrine. (see Online Repository for details)	SAR Positive: 2 of 3 Grades: 2 in positive adjudications
4-001	13/F	Watery eyes, flushed face, burning mouth, throat little tight, difficulty breathing, and normal vital signs. RX: AH, Epi, albuterol, prednisone. Discharged home in 1 h	DM, C, D, M	AR, A	2 min	Allergy clinic Anaphylaxis code: Epi used	SAR Positive: 2 of 2 Grades: 2 in both adjudications
8-001	14/M	Itching, throat tightness voice, changes, cough, nausea, and normal vital signs. RX: AH + Epi. Feeling better in 8 min, Discharged home in 1 h	DM, T	AR	5 min	Allergy clinic Anaphylaxis code: Epi used	SAR Positive: 2 of 2 Grades: 2 and 4 in 2 adjudications
Negative adjudicated SAR reviews							
1-001	10/M	Mild itching of the mouth and lips	DM, G, W, T, D	AR, A	2 mo	Hospitalization unrelated to HDM SLIT-tablet as tablet stopped 1 mo prior. Anaphylaxis code For throat swelling/ hives. Epi given at school. Aeroallergen SPT 1 d prior	Negative: 2 of 2
1-002	26/F	Negative	DM, C, D, CR	AR, A	5 wk	Hospitalization unrelated to HDM SLIT-tablet Acute respiratory failure due to arterial perforation from dog bite	Negative: 2 of 2

(Continued)

TABLE II. *(Continued)*

Pt No.	Age (y)/sex	Reactions during challenge	+ SPT/ RAST	Atopy	Time to event	EMR captured	SAR/EoE decisions: votes/ grades (1-5)
12-001	24/F	Increased pruritis RX: AH	DM	A	25 min	ED event for amoxicillin rash different time unrelated to HDM SLIT-tablet. Itching cheek and pruritis 25 min after challenge with half of an HDM SLIT-tablet. RX: AH	Negative: 3 of 3
12-002	39/F	Negative	DM, T, M	AR	2 wk	ED Mild lip swelling/ angioedema 24 hours after HDM SLIT-tablet. Given AH and prednisone	Negative: 2 of 3
10-002	59/M	Negative	DM, G, W, T, C, D, M	AR	6 wk	ED Lip angioedema during sleep related to ACE inhibitor	Negative: 2 of 2
7-004	32/M	Negative	DM, T, W	AR	5 d	UC Eye lid swelling attributed to HDM SLIT-tablet, grass SLIT tablet, or isotretinoin. Ophthalmology-diagnosed dry eyes	Negative: 2 of 2
CRC reviews for EoE							
Positive adjudicated EoE review							
1-003	23/M	Negative	DM, T, G	AR	17 mo	GERD with dysphagia	EoE Positive: 2 of 2 Grades: 1 and 2 in the 2 adjudications
Negative adjudicated EoE reviews							
7-002	35/F	Negative	DM, G, D, C, CR	AR, A	3 mo	GERD	Negative: 2 of 2
7-003	48/F	Negative	DM, G, C	AR, A	4 mo	GERD	Negative: 2 of 2
1-004	46/F	Negative	DM	AR, A	14 mo	GERD	Negative: 2 of 2
1-006	58/F	Negative	DM	AR, A	2 mo	GERD	Negative: 2 of 2
1-007	33/F	Itchy mouth	DM	AR	3 wk	GERD	Negative: 2 of 2
8-003	44/M	Negative	DM, G, W, T, CR	AR	3 wk	Laryngopharyngeal reflux	Negative: 2 of 2
1-008	31/M	Slight lip tingling	DM, G, T, W, C, D, CR, M	AR	2 mo	GERD	Negative: 2 of 2
13-001	50/M	Negative	DM, G, W	AR, A	5 mo	GERD	Negative: 2 of 2
3-001	64/M	Negative	DM	AR	3 mo	GERD	Negative: 2 of 2
9-001	26/F	Itchy mouth RX: AH	DM	AR	2 wk	GERD	Negative: 2 of 2
13-002	34/M	Negative	DM, T	AR, A	2 mo	GERD	Negative: 2 of 2
10-001	50/F	Negative	DM	AR	18 mo	GERD	Negative: 2 of 2
4-002	51/F	Negative	DM	AR, A	–4 mo	ED, GERD	Negative: 2 of 2
5-001	60/F	Negative	DM, G	AR, A	2 mo	GERD	Negative: 3 of 3

(Continued)

TABLE II. *(Continued)*

Pt No.	Age (y)/sex	Reactions during challenge	+ SPT/ RAST	Atopy	Time to event	EMR captured	SAR/EoE decisions: votes/ grades (1-5)
9-002	43/M	Itchy throat	DM, G, CR	AR, A	1 mo	GERD	Negative: 2 of 2
1-009	64/F	Negative	DM	AR, A	3 mo	GERD	Negative: 3 of 3
1-010	48/F	Itchy ear, throat, cough. RX: AH	DM, G, C, Mold	AR, A	9 mo	GERD	Negative: 3 of 3
8-004	36/F	Negative	DM, W	AR	3 mo	GERD	Negative: 2 of 2
1-011	28/F	Negative	DM	AR, A	11 mo	GERD	Negative: 2 of 2
8-005	26/F	Negative	DM	AR, A	2 mo	GERD	Negative: 2 of 2
10-003	53/F	Negative	DM, CR	AR, A	23 mo	GERD	Negative: 2 of 2

A, Asthma; *ACE*, angiotensin-converting enzyme; *AR*, allergic rhinitis; *AH*, antihistamine; *C*, cat; *CR*, cockroach; *CRC*, case review committee; *D*, dog; *DM*, dust mite; *ED*, emergency department; *EMR*, electronic medical record; *Epi*, epinephrine; *F*, female; *G*, grass; *M*, male; *Pt*, patient; *RAST*, radioallergosorbent test; *RX*, treatment; *SPT*, skin prick test; *T*, tree; *W*, weed; *UC*, urgent care.

TABLE III. Frequency and incidence rate of SARs and EoE during HDM SLIT-tablet challenge

Positive adjudicated reactions to HDM SLIT-tablet	Frequency of reactions, no. (%)	Incidence rate per 1000 person years, % (95% CI)
SAR	3 of 521 (0.58%) [95% CI = 0.11%-1.76%]	6.8 (95% CI = 2.2-21.1)
EoE	1 of 521 (0.19%) [95% CI = 0.00%-1.19%]	2.3 (95% CI = 0.3-16.1)

esophagus, whereas SLIT-tablets dissolve within seconds on the sublingual mucosa and are passively adsorbed in the oropharyngeal area.

The determination of the actual incidences of SAR or EoE in the present study was limited owing to the lower frequency of HDM SLIT-tablet utilization than anticipated, given that HDM SLIT-tablet use was targeted at 10,000 patients over the course of 5 years. Potential reasons for this low implementation of HDM SLIT-tablet use at KPSC included the relative newness of SLIT and the allergists' inexperience with its use, the long-established use of subcutaneous immunotherapy, and the greater ease of using subcutaneous immunotherapy for multiple-allergen immunotherapy. The present study was limited to administrative data analyses only and did not have patient-reported outcomes. The consequences of the varying coding expertise of physicians are unknown, but KPSC physicians are periodically reminded regarding appropriate coding. Because our study was the first retrospective observational study to report on adverse reactions during HDM SLIT-tablet treatment in a real-world setting, one can only speculate as to why patients discontinued HDM SLIT-tablet early versus in controlled clinical trials. Possible reasons for early discontinuation could be (1) displeasure with local adverse reactions; (2) inconvenience of taking a daily treatment; (3) lack of perception of adequate clinical benefit; (4) need for better education and understanding of potential adverse events; (5) less frequent education, understanding of potential adverse effects, and follow-up than in clinical trials; and (6) cost of the medication.[13] However, the study's strength lies in the comprehensive administrative data programming that captured all coded relevant adverse diagnostic events, hospitalizations, emergency department care, urgent care visits, and dispensed epinephrine. Use of the HDM SLIT-tablet was unrestricted, and our results are potentially more generalizable than those in clinical trials, which were encumbered by specific exclusions. In addition, an independent clinical review committee comprising experienced allergists adjudicated potential cases.

In summary, this real-world study demonstrated that SAR and EoE were infrequent events with HDM SLIT-tablet, thus supporting its safety and the need for physician supervision with initial challenge.

DISCLOSURE STATEMENT

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ALK-Abelló. The rest of the authors declare that they have no relevant conflicts of interest.

Clinical implications: In a real-word clinical setting, SLIT with HDM SLIT-tablets was associated with infrequent occurrences of SARs and EoE.

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