

SUPPLEMENTARY MATERIAL

Table 1s. Supplementary material- Baseline characteristics of the recruited infants (n=57)

Mean age (at inclusion)	0.6 months (range 0.2-1.17)		
Sex	Male	47.1%	
	Female	52.9%	
Ethnicity	Caucasian	84%	
	Hispanic	16%	
Pregnancy	Normal	86.3%	
	Pregnancy complications*	13.7%	
Delivery	Vaginal	80.4%	
	c-section	19.6%	
Weight at the beginning of the intervention, mean (g)	7759.04 (SD 1256.33)		
Height at the beginning of the intervention, mean (cm)	66.92 (SD 6.06)		
Vaccination (per calendar)	100%		
Breastfeeding	98% (mean duration 7 months)		
Breastfeeding maintained at inclusion	68.6%		
Atopic dermatitis	54.9%		
Wheezing	9.8% (confirmed bronchiolitis 7%)		
Allergy to other foods	15.5% has been diagnosed of other food allergies		
Symptoms with milk intake (symptoms that led to diagnosis of milk allergy)	oFASS-3	oFASS-5	% of patients
	Mild	Grade 1	4%
	Moderate	Grade 2	53%
		Grade 3	43%
	Severe	Grade 4	0
Grade 5		0	

*Gestational diabetes (4 pregnancies), hypothyroidism (5 pregnancies), shortened cervix (1 pregnancy). Polyhydramnios (1 pregnancy).

SD, standard deviation

Table 2s. Describes the severity of the reaction graded by o-FASS-5 score, discriminating between the setting, either hospital or home, and treatment received. Reactions which happened on step 1 are highlighted in pink, step 2 in magenta, step 3 in blue and step 4 in green.

Patient	Step	oFASS-5	Setting	Treatment received	Current status
01011	2B	Grade 4	Hospital	OCS, b2	Tolerates milk.
	3A	Grade 4	Hospital	AH, OCS, b2, adrenaline	
01014	2A	Grade 1	Hospital	AH, OCS	Tolerates milk.
	2A	Grade 1	Hospital	AH	
	4A	Grade 1	Hospital	AH	
	4A	Grade 1	Home	Resolved without treatment	
02006	1A	Grade 2	Hospital	AH, OCS	Tolerates milk.
02011	1A	Grade 4	Hospital	AH, OCS	Study withdrawal. Reactive
	1B	Grade 4	Hospital	AH, OCS, adrenaline	
	2A	Grade 4	Hospital	AH, OCS	
	2B	Grade 4	Hospital	AH, OCS	
03002	2B	Grade 4	Hospital	AH, b2	Tolerates milk.
	4A	Grade 4	Hospital	AH, OCS, b2, adrenaline	
	4A	Grade 2	Home	AH	
	4A	Grade 4	Home	b2	
	4B	Grade 4	Hospital	AH	
	4B	Grade 1	Hospital	Resolved without treatment	
	4B	Grade 4	Hospital	AH, OCS, b2, adrenaline	
03004	3A	Grade 2	Hospital	AH	Tolerates milk.
	4A	Grade 4	Hospital	AH	
	4B	Grade 2	Hospital	Resolved without treatment	
	4B	Grade 1	Hospital	Resolved without treatment	

	4B	Grade 1	Hospital	AH	
03008	4A	Grade 4	Hospital	AH, OCS	Tolerates milk.
	4A	Grade 4	Hospital	AH, OCS	
	4A	Grade 4	Hospital	OCS, b2	
03010	2A	Grade 1	Home	Resolved without treatment	Tolerates milk.
	2B	Grade 4	Hospital	AH, OCS, b2	
	2B	Grade 4	Hospital	AH, b2	
	2B	Grade 4	Hospital	AH, OCS, b2	
	3A	Grade 4	Hospital	AH, OCS, b2	
	3A	Grade 4	Hospital	AH, OCS, b2, adrenaline	
	4B	Grade 2	Hospital	AH	
	4B	Grade 2	Hospital	AH	

Table 3s. Supplementary material- Baseline (visit 1) allergological evaluation of the recruited babies (n=57)

Determination	Median [P25, P75]
SPT milk (mm)	4.5 [3.25, 6.5]
SPT ALA (mm)	5 [3.75, 7.25]
SPT BLG (mm)	5.5 [3.75, 7.25]
SPT CAS (mm)	4.25 [0, 6]
SPT BSA (mm)	0 [0, 4.13]
SPT milk (mm)	4.5 [3.25, 6.5]
IgE total (KU/l)	18.5 [7.75, 38.48]
IgE milk (KU/l)	1.64 [0.53, 4.47]
IgE ALA (KU/l)	0.29 [0.02, 1.12]
IgE BLG (KU/l)	0.53 [0.22, 1.79]
IgE CAS (KU/l)	0.28 [0.09, 1.54]

ALA: α -lactalbumin, BLG: β -lactoglobulin, CAS: casein, BSA: bovine serum albumin.

Skin-prick test were performed with commercial extracts (Roxall Group, Hamburg, Germany). Total and specific IgE were determined using ImmunoCAP (Thermo Fisher Scientific, Waltham, MA, USA; manufactured: Phadia AB, Uppsala, Sweden)

Table 4s. Supplementary material- Allergological evaluation of the patients that received the intervention (N=26)

Determination	1st VISIT	2nd VISIT
	Median [P25, P75]	Median [P25, P75]
SPT milk (mm)	5 [3.5, 6.75]	7.5 [5.6, 9]
SPT ALA (mm)	5.5 [4, 8]	7.5 [6.1, 9.3]
SPT BLG (mm)	6 [4.25, 7.5]	6 [4.3, 7.8]
SPT CAS (mm)	4 [0, 7]	5.5 [4.5, 8]
Total IgE (KU/l)	32.9 [17.8, 53.3]	82.5 [29.8, 204.3]
sIgE milk (KU _A /l)	2.9 [1.2, 7.1]	2.5 [1.3, 17.9]
sIgE ALA (KU _A /l)	0.54 [0.02, 1.15]	0.9 [0.16, 4.9]
sIgE (BLG) (KU _A /l)	0.75 [0.27, 2.3]	0.65 [0.3, 5.3]
sIgE (CAS) (KU _A /l)	0.45 [0.09, 4.1]	1.7 [0.09, 6.45]

SPT, skin prick tests; ALA: α -lactoalbumin, BLG: β -lactoglobulin, CAS: casein, BSA: bovine serum albumin; sIgE, specific IgE

Table 5s. Supplementary material-SPT, total IgE and sIgE values comparison between patients that did not experience reactions during the ML and those who had reactions in visit 1 and visit 2.

Determination	1st VISIT			2nd VISIT		
	NO REACTIONS	REACTIONS	p-value	NO REACTIONS	REACTIONS	p-value
	Median [P25, P75]			Median [P25, P75]		
SPT milk (mm)	5 [4, 7]	5 [3, 6.37]	0.726	6.75 [4.75, 7.87]	9 [6.62, 10.12]	0.024
SPT ALA (mm)	5.5 [2, 8.25]	5.5 [4.12, 7.5]	0.953	7 [5.12, 8]	8.25 [7.12, 9.87]	0.131
SPT BLG (mm)	6.5 [3.5, 7.25]	5.5 [4.62, 8.25]	0.683	6.25 [3.62, 6.87]	6 [5.12, 9.5]	0.816
SPT CAS (mm)	4 [0, 7]	3 [0, 7.75]	0.760	5.25 [4, 7.5]	7 [5.12, 8.37]	0.152
Total IgE (KU/l)	37 [19, 49]	30 [17.3, 79]	0.916	54 [6, 102]	188 [80, 284]	0.041
sIgE milk (KU _A /l)	1.69 [1.03, 4.47]	10.25 [1.94, 16.3]	0.035	1.54 [0.64, 4.23]	18.4 [8.76, 42.90]	<0.01
sIgE ALA (KU _A /l)	0.28 [0, 1.11]	1.03 [0.15, 7.6]	0.140	0.44 [0, 1.01]	4.91 [1.20, 18.55]	<0.01
sIgE (BLG) (KU _A /l)	0.5 [0.23, 2.29]	1.57 [0.88, 2.93]	0.201	0.42 [0.22, 0.91]	5.29 [0.80, 16.27]	0.011
sIgE (CAS) (KU _A /l)	0.32 [0.08, 1.53]	2.67 [0.18, 12.50]	0.127	0.16 [0.03, 1.54]	6.16 [3.35, 48.20]	<0.01

ALA: α -lactoalbumin, BLG: β -lactoglobulin, CAS: casein, BSA: bovine serum albumin; sIgE, specific IgE. Comparisons were calculated by using Mann-Whitney U test. P-values below 0.05 were considered statistically significant.

There were no statistically significant differences regarding severity of the initial reaction with milk, age, sex, atopic dermatitis or occurrence of wheezing.

Table 6s. Supplementary material- Description of the symptoms experienced during reactions. Reactions that happened at home are highlighted in light blue.

PATIENT	STEP	SETTING	GRADE	SYMPTOMS
1011	2B	Hospital	Grade 4	Cough
	3A	Hospital	Grade 4	Cough, urticaria, angioedema, rhinitis and conjunctivitis
1014	2A	Hospital	Grade 1	Peri-labial erythema and two isolated hives
	2A	Hospital	Grade 1	Peri-labial erythema and pruritus
	4A	Hospital	Grade 1	Peri-labial erythema
	4A	Home	Grade 1	Peri-labial erythema and peri-labial hives
2006	1A	Hospital	Grade 2	Urticaria
2011	1A	Hospital	Grade 4	Cough, urticaria and flushing
	1B	Hospital	Grade 4	Cough, rhinitis
	2A	Hospital	Grade 4	Cough, urticaria and rhinitis
	2B	Hospital	Grade 4	Cough, rhinitis
3002	2B	Hospital	Grade 4	Cough, rhinitis and urticaria
	4A	Hospital	Grade 4	Cough, rhinitis and urticaria
	4A	Home	Grade 2	Facial erythema and pruritus
	4A	Home	Grade 4	Cough
	4B	Hospital	Grade 4	Cough and flushing

	4B	Hospital	Grade 1	Peri-labial erythema
	4B	Hospital	Grade 4	Cough, urticaria and vomits
3004	3A	Hospital	Grade 2	Urticaria
	4A	Hospital	Grade 4	Cough, wheezing and urticaria
	4B	Hospital	Grade 2	Abdominal pain
	4B	Hospital	Grade 1	Peri-labial erythema
	4B	Hospital	Grade 1	Oral itching and peri-labial erythema
3008	4A	Hospital	Grade 4	Cough and rhinitis
	4A	Hospital	Grade 4	Cough and rhinitis
	4A	Hospital	Grade 4	Cough
3010	2A	Home	Grade 1	peri-labial erythema
	2B	Hospital	Grade 4	Cough, rhinitis and conjunctivitis
	2B	Hospital	Grade 4	Cough urticaria and vomits
	2B	Hospital	Grade 4	Cough and rhinitis
	3A	Hospital	Grade 4	Cough
	3A	Hospital	Grade 4	Vomits, diarrhea, rhinitis and conjunctivitis
	4B	Hospital	Grade 2	Flushing
	4B	Hospital	Grade 2	Flushing