

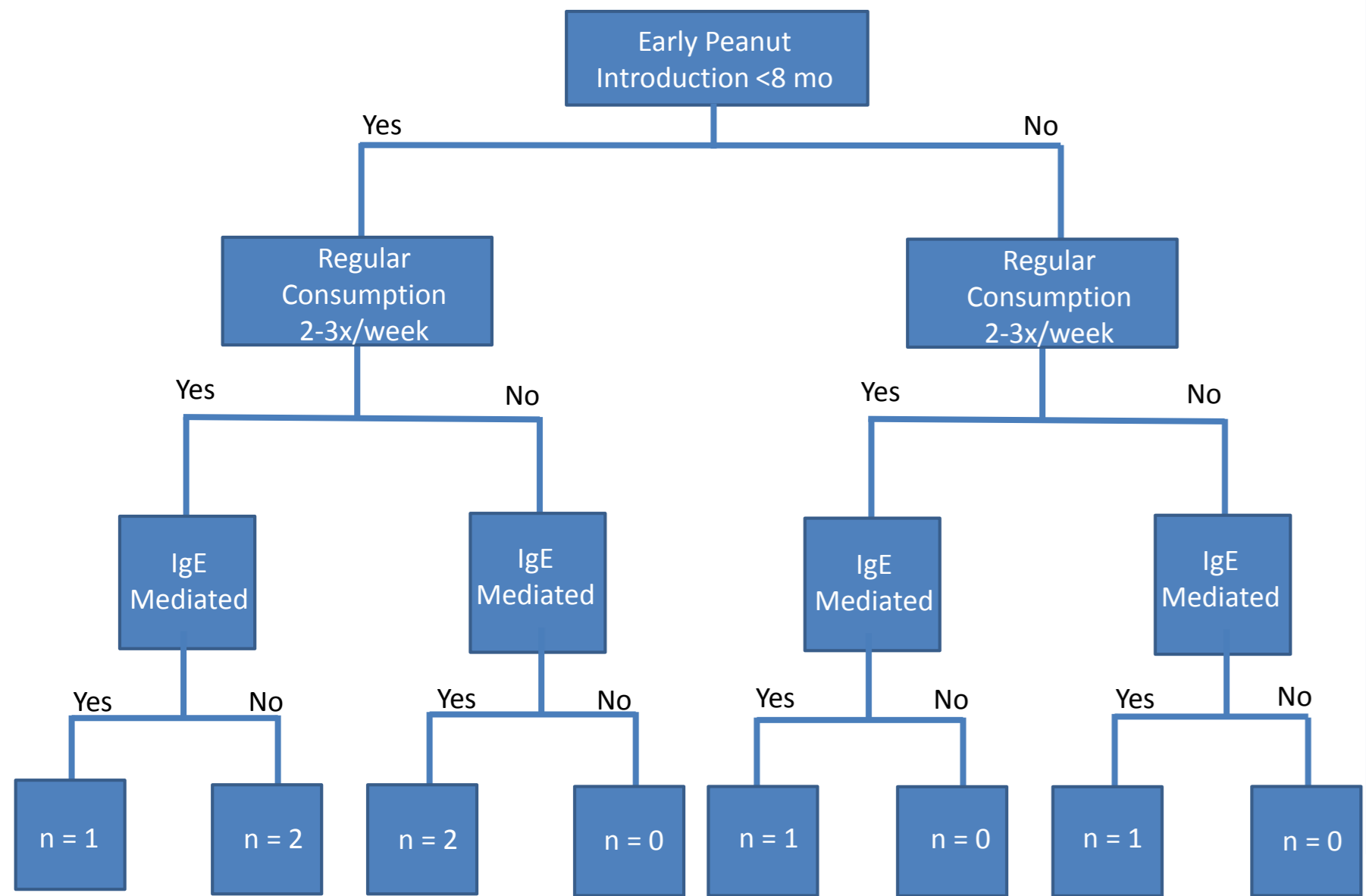


BACKGROUND

- The prevalence of food allergies has significantly increased in the last decade
- Initial guidelines initially recommended avoidance of allergenic foods in infants, including cow’s milk before 1 year of age, egg before 2 years of age and peanut, tree nuts, fish and shellfish before 3 years of age
- More recent studies, first the LEAP Trial, confirmed that early introduction of peanut may actually significantly reduce the risk of developing peanut allergy.
- NIAID published a consensus report encouraging the early introduction of peanut in infants as well.
- These new guidelines are now readily followed by most practices with understanding that once establishing tolerance, concern for anaphylaxis is greatly diminished
- We report a case-series of early introduction and initial tolerance to peanut, with subsequently development of peanut allergy or peanut-triggered food protein induced enteropathy syndrome (FPIES)

METHODS

- Seven cases identified in allergy clinic setting
- Retrospective chart review



RESULTS

Patient	1	2	3	4	5	6	7
Sex	M	F	M	M	M	F	F
Age at initial peanut introduction (months)	7	12	6	6	<15	6	7
Age at peanut reaction (months)	12	13	12	8	15	7	8
Duration of peanut consumption (months)	4	1	6	2	NA	1	1
Frequency of peanut consumption (times/week)	2-3	2-3	Irregular	1	Irregular	2-3	2-3
Age at testing (months)	12	24	12	12	17	7	7
Peanut SPT at baseline (initial introduction)	NA	0/0	NA	NA	NA	0/0	0/0
Peanut SPT following allergic reaction (wheal/mm)	7/20	12/30	4/15	NA	13/-	1/2	NA
slgE peanut at baseline (initial introduction kU/L)	NA	NA	NA	NA	NA	<0.10	0.15
slgE peanut following allergic reaction (kU/L)	5.41	1.37	1.41	1.96	NA	<0.10	NA
IgE mediated reaction (Y/N)	Yes	Yes	Yes	Yes	Yes	No	No
FPIES reaction (Y/N)	No	No	No	No	No	Yes	Yes

Table 1: Demographics and Clinical Characteristics

Patient 1 was introduced to peanut at 7 months and tolerated regular exposure until 12 months when she developed eye swelling and facial angioedema. Patient 2 was introduced to peanut at 12 months and tolerated regular exposure until 13 months, developing hives after ingestion. Patient 3 was introduced to peanut at 6 months, and tolerated irregular exposure until 12-months when peanut ingestion triggered generalized urticaria. Patient 4 was introduced to peanut at 6 months of age and tolerated regular exposure until 8 months when he developed hives. Patient 5 was introduced to peanut early with irregular exposure and at 15-months developed bilateral eyelid swelling, nasal drainage, and hoarseness. Patient 6 was introduced to peanut at 6 months and tolerated until 7 months, when she developed persistent vomiting and cough 2.5 hours after peanut. Patient 7 introduced peanut at 7 months and tolerated irregular consumption until 8 months when ingestion resulted in profuse vomiting 2 hours after ingesting

CONCLUSION

- We describe 7 different infants with initial successful peanut introduction, but subsequent development of allergic reactions.
- In 4 cases, peanut consumption was regular and in adequate amounts (based on current guidelines). In 3 cases, peanut consumption was irregular with reduced frequency than currently recommended. Five of our patients developed IgE-mediated peanut allergy, whereas two developed FPIES to peanut. Peanut was generally tolerated for 1-6 months prior to the development of allergy.
- Our findings suggest that in a minority of infants, peanut allergy (both immediate and FPIES type) may develop despite successful early introduction and regular consumption. Those with irregular consumption may be even more at risk, although further investigation is required, as the optimal frequency and dosing of peanut remains to be elucidated.
- Our results provide new information on early peanut introduction and may help healthcare providers to educate patients accordingly. Further studies are required to advise on the optimal frequency and amount of peanut consumption, which may even vary between infants depending on their baseline risk.

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