

WISC 2012

2012 WAO International Scientific Conference

POST GRADUATE COURSE

FOOD ALLERGY TRACK - Practical Management of Food Allergy and Oral Desensitization

Regional Perspectives

*BW Lee, Dept Paediatrics
National University of Singapore*

Hyderabad, India
6-9 December 2012

2nd wave of the allergy epidemic?

Food Allergy

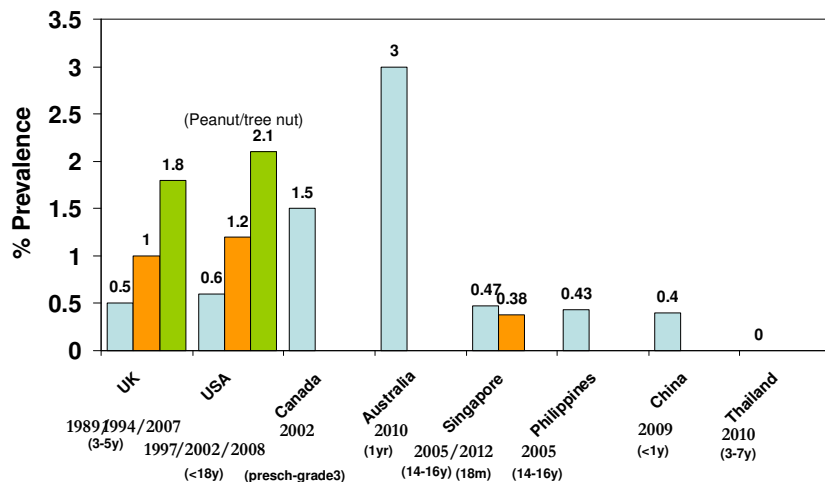
Peanut allergy: Emerging concepts and approaches for an apparent epidemic

J Allergy Clin Immunol 2007

Scott H. Sicherer, MD, and Hugh A. Sampson, MD *New York, NY*

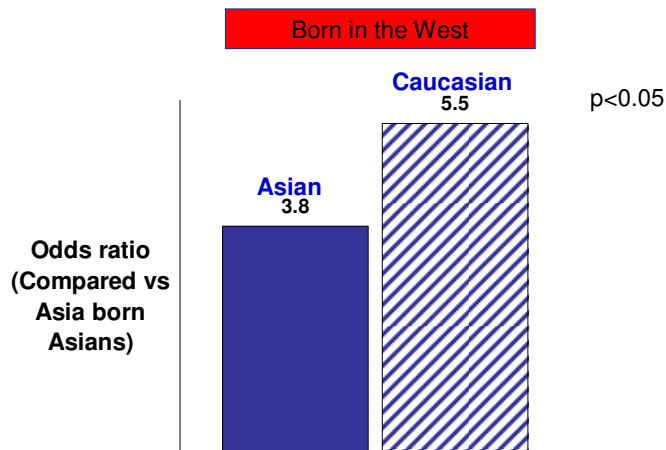
Is there a Food Allergy Epidemic in Asia?

Peanut Allergy Around the World



Hourihane *et al.*, J Allergy Clin Immunol 2007
 Sicherer *et al.*, J Allergy Clin Immunol 2010
 Kagan *et al.*, J Allergy Clin Immunol 2003
 Osborne *et al.*, J Allergy Clin Immunol 2011
 Shek *et al.*, J Allergy Clin Immunol 2010
 Gusto Cohort, Singapore (unpublished)
 Chen *et al.*, Pediatric Allergy Immunol 2011
 Tang *et al.*, J Allergy Clin Immunol 2012
 Lao-Araya Ped Int 2012

Peanut Allergy and Country of Birth



Asian = Chinese, Malay, Indian, Filipino
Western countries = Australia, New Zealand, United Kingdom, North America and Western Europe

Shek *et al.* J Allergy Clin Immunol 2010

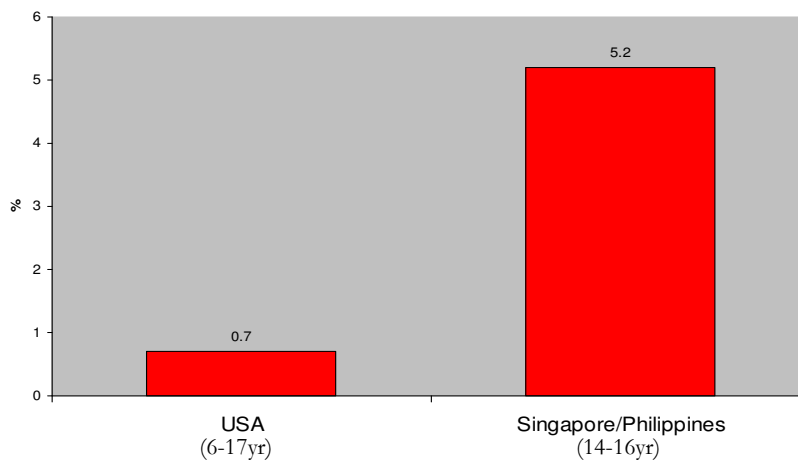
Wheat and Buckwheat Allergy in Japan

Table 2. Allergens related to self-reported anaphylaxis in Japan

Allergen	Number	Percentage of study patients (319 patients) (%)
Milk	221	69.3
Eggs	144	45.1
Wheat	92	28.8
Peanuts	27	8.5
Sesame	25	7.8
Kiwi fruit	13	4.1
Soybean	13	4.1
Buckwheat	11	3.4
Shrimps	9	2.8
Walnuts	9	2.8
Gelatine	9	2.8
Bananas	9	2.8
Salmon roe	7	2.2
red sea bream	6	1.9
Tuna	5	1.6
Others	119	37.3
Unknown	66	20.7
	785	

Imamura et al Ped Allergy Immunol 2011

Shellfish Allergy *Population-based Surveys*



Sicherer S, J Allergy Clin Immunol 2004
Shek LP, J Allergy Clin Immunol 2010

Shellfish

Most Common Cause of Anaphylaxis in Asia

- Thailand Adults and Children
- Hongkong Adults
- Singapore Adults

Jirapongsaranuruk O et al Ann Allergy Immunol 2007
Smit DV et al J Emerg Med 2005
Thong B et al Sing Med J 2005

Prebiotic (Carbohydrate) Triggered Anaphylaxis

Anaphylaxis to cow's milk
formula containing short-chain
galacto-oligosaccharide
(GOS)

Report of 5 Cases in Singapore

Chiang *et al* J Allergy Clin Immunol 2012 (early view online)

Clinical Features

TABLE I. Clinical features of subjects presenting with anaphylaxis to CMF with scGOS

Patient no.	Sex	Race	Atopy phenotype	Age of reaction	No. of episodes	Milk eliciting reaction	Volume eliciting reaction (mL)	Time (min)	Reaction	Type of treatment	Place of treatment
1	F	Chinese	AR AS AD AC	5 y, 6 mo	3	Gain IQ Step3 (CMF2)	(1) 100 (2) 120* (3) 40	10	RS Resp	AH, β_2 -agonist, oxygen	Hospital
2	F	Chinese	AR AD	6 y, 6 mo	1	Mamil Gold Step4 (CMF1)	250	30	AE RS Resp	AH, steroids	Hospital
3	M	Chinese	AR	38 y	1	Mamil Gold Step3 (CMF1)	180	10	AE RS Resp	Adrenaline, AH, steroids, β_2 -agonist, oxygen	Hospital
4	F	Chinese	AR SF Allergy	6 y	1	Mamil Gold Step4 (CMF1)	250	15	AE GU GI RS Resp	Steroids	Outpatient clinic
5	M	Malay	AD AR AS	8 y	1	Gain IQ Step3 (CMF2)	180	5	AE GU RS Resp	Adrenaline, AH, steroids, β_2 -agonist, oxygen	Hospital

AC, Allergic conjunctivitis; AD, atopic dermatitis; AR, allergic rhinitis; AS, asthma; AE, angioedema; AH, antihistamines; GI, generalized urticaria; GU, generalized urticaria; Resp, wheeze, dry persistent cough, or dyspnea; RS, rhinorrhea and sneezing.

Chiang et al J Allergy Clin Immunol 2012 (in press)



THAILAND, THE COUNTRY AND ITS PEOPLE

contact Baht Exchange News Thailand Weather Meditation Centers Thai Radio

Calotes versicolor - Color Changing Lizard

Feb 21 2012

Weird Food - Ant Eggs

Exotic Food, Insects and Bugs




Unique Allergen of Thailand

Lao-Araya et al, Ped Int 2012

<http://www.thailandunique.com/store/weaver-ants-eggs-preserved-p-49.html>

Conclusions

- It does not appear that Asia is facing a food allergy epidemic
 - Better oral tolerance?
- Pattern of food allergy is different and may be related to environmental allergens
 - Inhalant/environmental and food allergens