

**UNIVERSITI SAINS MALAYSIA
PROJEK PENYELIDIKAN JANGKA PENDEK
LAPORAN AKHIR**

**ASSOCIATION BETWEEN COMMON
ALLERGENS AND SYMPTOMS AMONG
ALLERGIC RHINITIS PATIENTS IN HUSM**

PENYELIDIK

DR. NOOR SURYANI MOHD ASHARI

PENYELIDIK BERSAMA

**DR. NURUL KHAIZA YAHYA
DR. SUZINA SHEIKH ABDUL HAMID
DR. CHE MARAINA CHE HUSSIN**

2010

BORANG LAPORAN HASIL PENYELIDIKAN

PPSP

Tajuk geran: Association between common allergens and symptoms among allergic rhinitis patients in HUSM

Penyelidik: Dr Noor Suryani Mohd Ashari

Jenis geran: STG

Tempoh geran: 2 tahun 9 bulan

Jenis laporan: Laporan Kemajuan Alatan di beli Ya,nyatakan.....

Laporan Akhir*: Tidak

OBJEKTIF SPESIFIK KAJIAN (sama spt dalam proposal asal)	SECARA RINGKAS TERANGKAN PENCAPAIAN/HASIL	OBJEKTIF TERCAPAI ATAU TIDAK
1. To determine the prevalence of common allergens in AR patients in Hospital Universiti Sains Malaysia.	Among the aeroallergens, <i>Dermatogoides farinae</i> (97%) was the most common followed by <i>Dermatogoides pteronyssinus</i> (83%) and house dust mite (43%). Among the food allergen group, shrimp (28.9%) was the most common implicated food followed by soybean (26.6%), crab (23.4%), clam (22.7%), wheat (21.9%), peanut (20.3%), yolk egg (18.8%), cow's milk (18.0%), citrus mix (18.0%), beef (14.1%), white egg (12.5%), tuna (11.7%) and chicken (11.7%). For fungal allergen, <i>aspergillus spp</i> (23.4%) was found to be the most common fungal followed by <i>candida spp</i> (20.3%), <i>altenaria spp</i> (16.4%), <i>mucor spp</i> (14.8%), <i>penicillium spp</i> (12.5%) and <i>cladosporium spp</i> (10.9%). Cockroach (49.2%) was the most common animal allergen. Cat (44.5%), dog (43.0%), latex (42.2%), Bermuda (28.9%) and Johnson (21.9%) grass were also common.	Tercapai
2. To determine the prevalence of symptoms in patients with AR.	Among the studied subjects, sneezing was a main clinical presentation in almost all AR patients, which accounts for 99.2% (127 patients). Rhinorrhoea and nasal or eye itchiness present in 94.5% (121 patients) where as 86.7% (111 patients) had nasal obstruction.	Tercapai
3. To determine the association between the specific IgE class and the severity of symptoms among AR patients.	There was a significant association between the specific IgE levels and the severity of allergic rhinitis for <i>Dermatogoides farinae</i> ($p=0.024$), <i>Dermatogoides pteronyssinus</i> ($p=.039$), cockroach ($p = 0.038$) cat ($p = 0.042$) and latex ($p = 0.044$).	Tercapai

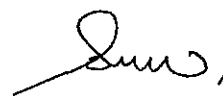
- Laporan Akhir perlu disertakan salinan manuskrip dan sura: yang dihantar kepada mana-mana jurnal untuk penerbitan.

Nama Penyelidik Utama (PI): DR NOOR SURYANI

Tarikh: 13/5/2010

MOHD ASHARI

tt:



6. Abstrak Penyelidikan

(Perlu disediakan di antara 100 - 200 perkataan di dalam Bahasa Malaysia dan juga Bahasa Inggeris. Abstrak ini akan dimuatkan dalam Laporan Tahunan Bahagian Penyelidikan & Inovasi sebagai satu cara untuk menyampaikan dapatan projek tuan/puan kepada pihak Universiti & masyarakat luar).

Abstract of Research

(An abstract of between 100 and 200 words must be prepared in Bahasa Malaysia and in English).

This abstract will be included in the Annual Report of the Research and Innovation Section at a later date as a means of presenting the project findings of the researcher/s to the University and the community at large)

Lampiran 1

7. Sila sediakan laporan teknikal lengkap yang menerangkan keseluruhan projek ini.

[Sila gunakan kertas berasingan]

Applicant are required to prepare a Comprehensive Technical Report explaining the project.

(This report must be appended separately)

Senaraikan kata kunci yang mencerminkan penyelidikan anda:

List the key words that reflects your research:

Bahasa Malaysia

Allergens

Allergic rhinitis

Immunoglobulin E

Bahasa Inggeris

Allergens

Allergic rhinitis

immunoglobulin E

8. Output dan Faedah Projek

Output and Benefits of Project

(a) * Penerbitan Jurnal

Publication of Journals

(Sila nyatakan jenis, tajuk, pengarang/editor, tahun terbitan dan di mana telah diterbitkan/diserahkan)

(State type, title, author/editor, publication year and where it has been published/submitted)

"Association between common allergens and symptoms among malaysian rhinitis patients". Sent for publication in

Asian Pacific Journal of Allergy and Immunology (Lampiran 2)

Poster presentation

- 1) "Prevalence of common allergens among allergic rhinitis patients" at 14th National Conference on Medical Sciences
- 2) "Association between specific IgE levels and severity of symptoms among allergic rhinitis patient" at 8th Annual Scientific Meeting of The College of Pathologist.

- (b) **Faedah-faedah lain seperti perkembangan produk, pengkomersialan produk/pendaftaran paten atau impak kepada dasar dan masyarakat.**
State other benefits such as product development, product commercialisation/patent registration or impact on source and society.

Impact on society

The positive correlation between specific IgE levels and severity of few allergens in this study might have potential criteria for diagnosis. This is important especially in children who cannot give full history.

* Sila berikan salinan/Kindly provide copies

- (c) **Latihan Sumber Manusia**
Training in Human Resources

- i) **Pelajar Sarjana:**
Graduates Students
(Perincikan nama, ijazah dan status)
(Provide names, degrees and status)

Dr Wan Majdiah Wan Mohamad

MPATH (Immunology)

Status: Lecturer at PPSG

- ii) **Lain-lain:**
Others

9. **Peralatan yang Telah Dibeli:**
Equipment that has been purchased

Tiada


Tandatangan Penyelidik
Signature of Researcher

Tarikh
Date

3/5/2010

Komen Jawatankuasa Penyelidikan Pusat Pengajian/Pusat
Comments by the Research Committees of Schools/Centres

The project has been successfully completed and all objectives achieved.

The project output include a book (Chromatology), two poster presentations and a manuscript submitted to Asian Journal of Allergy and Immunology on 27 December 2009.

The report has been assessed by an independent assessor and approved by the prog research committee.

PROFESSOR AHMAD SUKARI HALIM
Chairman of Research Committee
School of Medical Sciences
Health Campus
Universiti Sains Malaysia
16150 Kubang Keran, Kelantan.

TANDATANGAN PENERUSI
JAWATANKUASA PENYELIDIKAN
PUSAT PENGAJIAN/PUSAT
Signature of Chairman
[Research Committee of School/Centre]

19/12/10
Fatikh
Date

Abstract

Allergic rhinitis is the most common allergic disease affecting an estimated four million people in Malaysia. Although this disease is not usually severe disease, it significantly alters the social life of patients and affects school learning performance as well as work productivity. This study was done to determine levels of allergen specific Immunoglobulin E assay, in allergic rhinitis patients in Hospital Universiti Sains Malaysia (HUSM), Malaysia and to determine the severity of symptoms before proceed with evaluation of possible association between this parameter with severity of allergic rhinitis. In this cross sectional study, total and specific IgE to 28 types of allergens were measured in serum samples from 128 allergic rhinitis patients. The interviewer guided questionnaire was used to evaluate the severity of symptoms using ARIA criteria. In this study we found that *Dermatogoides farinae* (97%) was the most common allergen. Regarding the symptoms, sneezing (99.2%) was found to be the most common clinical symptoms. We also found a significant association between the specific IgE levels and the severity of allergic rhinitis for *Dermatogoides farinae* ($p=0.024$), *Dermatogoides pteronyssinus* ($p=.039$), cockroach ($p = 0.038$) cat ($p = 0.042$) and latex ($p = 0.044$).

Abstrak

Allergic rhinitis adalah penyakit alergi yang paling kerap berlaku di Malaysia melibatkan 4 juta penduduk. Walaupun penyakit ini biasanya bukanlah merupakan penyakit yang teruk tetapi ianya mengganggu kehidupan sosial pesakit dan juga mengganggu tahap pembelajaran dan mutu kerja pesakit. Kajian ini dilakukan untuk mengukur paras Immunoglobulin E di dalam pesakit allergic rhinitis di Hospital Universiti Sains Malaysia (HUSM), Malaysia, mengenalpasti simptom-simptom yang berlaku dan seterusnya menghubungkan paras IgE specific dengan keterukan gejala penyakit ini. Di dalam kajian keratin lintang ini, paras IgE total dan specific untuk 28 alergen dianalisa daripada 128 serum pesakit allergic rhinitis. Borang soal selidik diisi oleh pesakit untuk mengenalpasti tahap keterukan penyakit menggunakan ARIA criteria. Didalam kajian ini kami mendapati *Dermatogoides farinae* (97%) adalah alergen yang paling kerap menyebabkan penyakit allergic rhinitis. Bersin (99.2%) pula adalah simptom yang paling kerap. Kami juga mendapati perkaitan yang signifikan diantara paras IgE specific dengan keterukan penyakit untuk *Dermatogoides farinae* ($p=0.024$), *Dermatogoides pteronyssinus* ($p=.039$), cockroach ($p = 0.038$) cat ($p = 0.042$) and latex ($p = 0.044$).