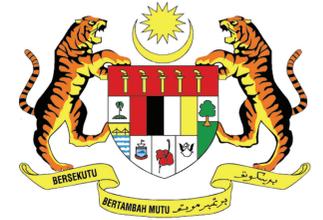




# A 5-YEAR RETROSPECTIVE COHORT OF PSORIASIS in Hospital Tengku Ampuan Rahimah, Klang (2008 – 2013)



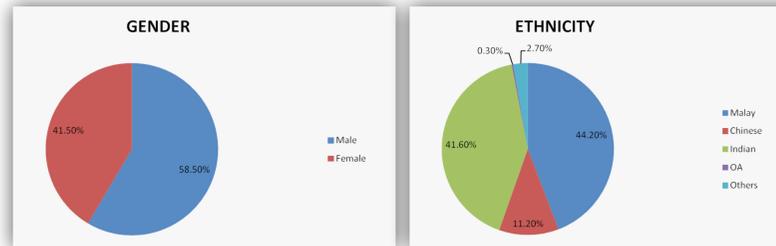
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## INTRODUCTION

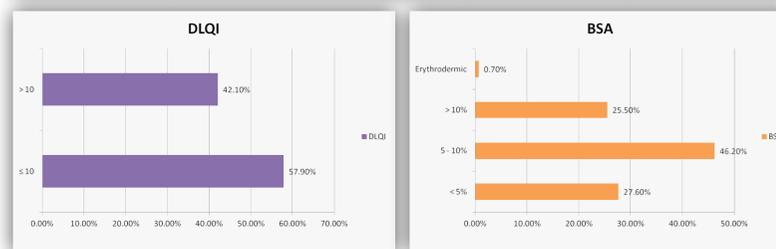
Psoriasis is a common skin disorder with complex underlying immune mediated pathology. Worldwide psoriasis prevalence rates range from 0.6 - 4.8 % [1]. A hospital-based study on epidemiology of psoriasis in Malaysia in 2010 indicated that psoriasis is common in Malaysia and its distribution varies with age, ethnicity and gender [2]. While national epidemiological data is readily available, local data is not widely made known for comparison, hence our initiative to establish the epidemiology of patients with psoriasis in HTAR, Klang between 2008 and 2013.

## METHODS

This is a retrospective study of all patients with psoriasis attending the Dermatology Clinic of HTAR Klang between 1st January 2008 and 31st December 2013. All demographic and clinical data was obtained from the National Psoriasis Registry and analyzed using SPSS software version 17.0.



	Malaysia 2007 - 2011	HTAR 2008 - 2013
<b>Demographic</b>		
M:F	1.3 : 1	1.4 : 1
M:C:I	2.8 : 1.2 : 1	1.1 : 0.3 : 1
Age <40 (Type 1)	66.3%	67.6%
Age ≥ 40 (Type 2)	33.7%	32.4%
<b>Co-morbidity</b>		
Obesity	34.9%	29.4%
Diabetes mellitus	17.6%	14.6%
Hypertension	25.2%	16.8%
Dyslipidemia	16.6%	8.3%
IHD	5.5%	3.6%
Stroke	1.5%	1.5%
<b>Severity</b>		
Mild psoriasis (BSA ≤ 10%)	76.4%	73.8%
Moderate-severe psoriasis (BSA >10%)	23.6%	26.2%
<b>Type of Psoriasis</b>		
Plaque	88.9%	95.8%
Guttate	4.5%	1.3%
Erythrodermic	2.1%	0.6%
Pustular	1.4%	0.2%
Flexural/Inverse	0.5%	1.0%
Nail involvement	59.8%	35.4%
Joint disease	15.0%	9.7%
<b>Treatment</b>		
Topical	96.3%	99.0%
Phototherapy	4.1%	1.5%
Systemic	52.0%	6.6%
<b>DLQI</b>		
≤10	67.6%	57.9%
>10	32.4%	42.1%



## RESULTS

### Demographic

- A total of 969 new patients were diagnosed with psoriasis from 2008 to 2013, out of which 567 (58.5%) were men. The male:female ratio was 1.4:1.
- Malays and Indians made up the majority of patients (44.2% and 41.6% respectively) and this mirrors the Dermatology clinic attendance with Malays and Indians making up 40.4% and 39.3% of patients respectively.

### Medical History

- The mean age of onset of disease was 31.72 ± 16.58 years. 67.6% of patients were aged below 40 years old at the onset of psoriasis, while 32.4% were 40 years old and above at the onset of disease.
- 20.7% of patients had a family member stricken with psoriasis, and 37.3% were able to identify a factor which aggravated their psoriasis, stress being the commonest contributing factor (21.2%).

### Comorbidities

- Hypertension, diabetes mellitus and dyslipidemia were the commonest comorbidities encountered in patients with psoriasis, found in 16.8%, 14.6% and 8.3% of patients, respectively.
- The mean body mass index (BMI) was 25.18 ± 5.72 kg/m<sup>2</sup>. 29.4% of patients were obese [4].

### Clinical Presentation

- The most common type of psoriasis encountered was plaque psoriasis (95.8%) followed by guttate (1.3%) and erythrodermic psoriasis (0.6%). The majority of patients (73.8%) presented with mild disease (Body Surface Area ≤ 10%) while the remaining quarter presented with moderate-severe psoriasis (BSA > 10%).
- A third of the patients had nail involvement while 9.7% had joint disease.

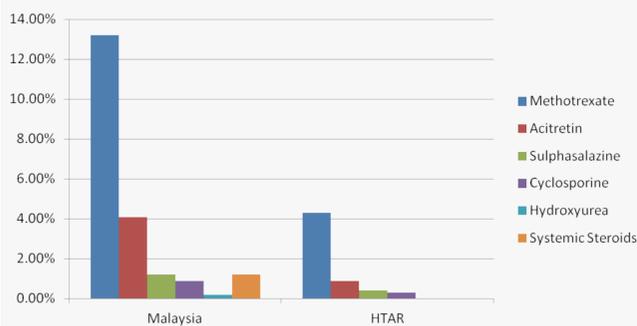
### Treatments

- Almost all patients (99.0%) were prescribed topical therapy, out of which 76.9% were prescribed tar preparations, 73.2% topical steroids, 18.9% emollients, 16.5% vitamin D analogues, and 14.6% keratolytics.
- 6.6% of patients were prescribed systemic therapy, out of which 4.3% were prescribed methotrexate, 0.9% acitretin, 0.4% sulphasalazine and 0.3% cyclosporine.
- Only 1.5% of patients were prescribed phototherapy, all of which were narrow-band ultraviolet B.

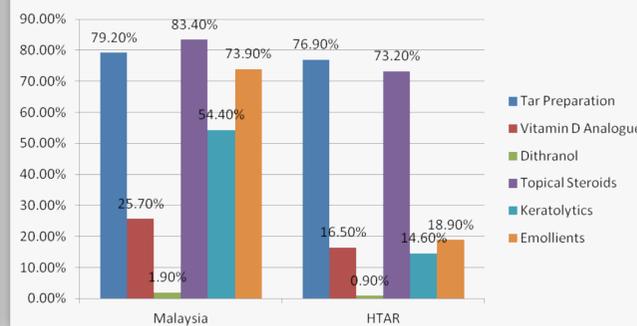
### Quality of Life

- 57.9% of patients scored a DLQI of ≤ 10 on presentation, while 42.1% scored > 10.

## SYSTEMIC THERAPY



## TOPICAL THERAPY



## DISCUSSION

- The male:female ratio of our patients is similar to the national ratio, indicating a slight male preponderance of psoriasis among Malaysian patients.
- Ethnic distribution varies markedly from that of the national data, whereby Malays and Indians make up the majority of patients. This however, closely reflects the patient demographic attending the Dermatology clinic in HTAR, with Malays and Indians making up 40.4% and 39.3% of patients respectively.
- Two-thirds of our patients suffered the onset of psoriasis before the age of 40, similar to the national prevalence. This supports a wider prevalence of Type I HLA-C\*06-associated psoriasis.
- A positive family history was present in one-fifth of our patients, just as in the national census.

- While half of the patients with psoriasis in Malaysia reported one or multiple factors which aggravated their psoriasis, only 37.3% of our patients were able to identify an aggravating factor. Stress was still the commonest aggravating factor, reported by 67.0% of patients in the national registry but only by 21.2% in our cohort.
- The prevalence of comorbidities among patients with psoriasis is similar in both the national group as well as our local group, with obesity, hypertension, diabetes mellitus and dyslipidemia being the four most common diseases encountered. A third of patients in both groups were obese.
- The prevalence of mild and moderate-severe disease was also similar in both groups, as were the prevalence of the most common types of psoriasis, namely plaque psoriasis, guttate and erythrodermic psoriasis. In our cohort, there were fewer patients presenting with nail involvement and joint disease when compared to the national group.

- As far as treatment modalities are concerned, topical therapy usage was essentially the same in both groups. However, there was a lower prescription of phototherapy among our patients. This is possibly due to most patients being in the working and school-going age group where a two- or three-weekly phototherapy session may not be feasible. There is also a lower prescription of systemic therapy among our patients when compared to national data, and this might also be attributed to difficulties in adhering to regular blood testing and follow-ups.
- Despite having a significant number of patients with moderate-severe psoriasis (25.5% with a BSA involvement of >10%; 42.1% with a DLQI score of >10), only a small percentage underwent phototherapy and/or were prescribed systemic phototherapy. This again is postulated to be mainly due to inaccessibility to phototherapy or difficulty in adhering to regular blood testing because of travel distance and/or work and school schedule.

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