MALAYSIAN PSORIASIS REGISTRY (MPR)
RESULTS FROM OCTOBER 2007 TO DECEMBER 2008

C. C. Chang[*], H. B. Gangaram[†], B. Roshidah[*]
[*]Department of Dermatology, Hospital Kuala Lumpur
[†]Prince Court Medical Centre, Kuala Lumpur

INTRODUCTION

Psoriasis is a chronic skin disease characterized by inflamed scaly patches and plaques with variable degree of severity. It causes significant physical, psychosocial and economic impact.

The **Malaysian Psoriasis Registry (MPR)** is the first skin disease clinical registry under the National Dermatology Registry project. It was established in 1998 and extensively revised in 2007.

OBJECTIVES

This registry aims to study the socio-demographic characteristics, clinical manifestation, comorbidities, treatment, outcome, and quality of life issues of patients with psoriasis.

METHODOLOGY

The MPR is a prospective systematic collection of data for patients with psoriasis. All patients who are clinically diagnosed to have psoriasis by registered dermatologist or by medical practitioner under the supervision of a dermatologist are included. Confirmation of diagnosis by histopathologic examination is optional. Patients whose diagnosis is in doubt are excluded.

Data are collected on the patient's first visit to the participating centre and thereafter every 6 months during follow-up visits. The case report form consists of a clinical data form and multilingual Dermatology Life Quality Index (DLQI) forms. A centralised electronic database with web application is implemented to facilitate online data entry.

RESULT AND DISCUSSION

During the period from October 2007 to December 2008, a total of 2,499 patients with psoriasis from 13 dermatology centres (12 government and 1 private) were notified to the registry.

Male-to-female ratio was 1:1.27.

Ethnic distribution: Malay 49.9%, Chinese 25.3%, Indian 14.6%, other ethnic groups 9.2%, foreigners 0.7%.

Mean age of onset was 33.3 ± 16.6 (range 1 - 81 years).

18.9% of the patients had family history of psoriasis. Positive family history was more common among patients with younger onset of disease (aged 40 and below): 21.7% vs 13.6%, OR 1.77, 95%CI 1.40-2.24, p<0.0001. Family members affected were either of their parents in 36.4%, siblings in 28.5% and children in 10.4%.

55.5% of the patients reported one or multiple factors which aggravated their psoriasis. Common aggravating factors include stress (66.7%), sunlight (37.2%) and infection (19.7%).

Plaque psoriasis was the commonest clinical type (83.7%). This was followed by guttate psoriasis (4.8%), erythrodermic psoriasis (3.4%), pustular psoriasis (1.2%) and flexural psoriasis (0.6%) (**Figure 1**).

The majority of patients (64.2%) had body surface area involvement of 10% or less (**Figure 2**).

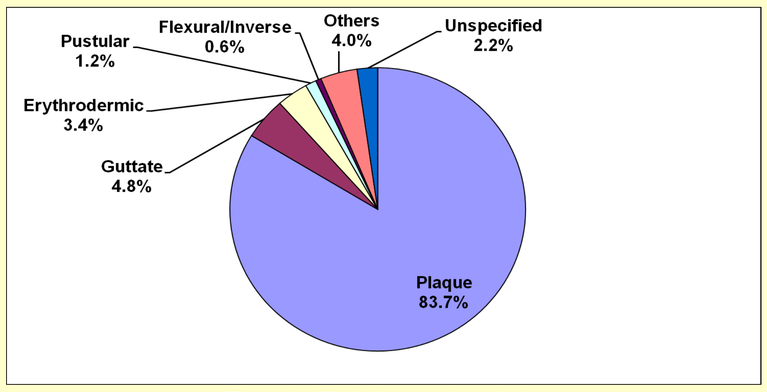

Figure 1: Clinical types of psoriasis

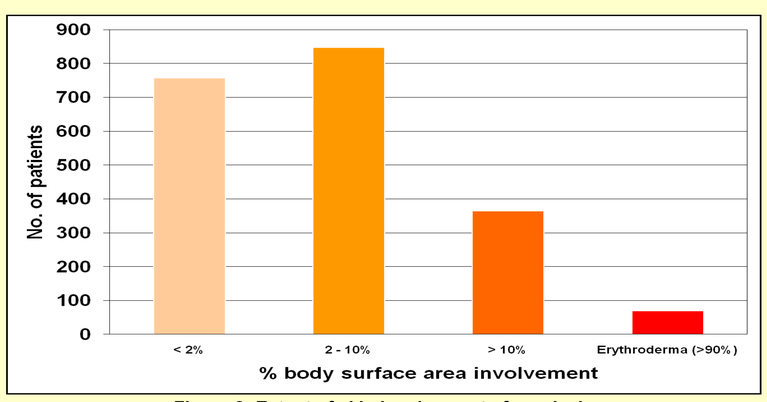

Figure 2: Extent of skin involvement of psoriasis

Psoriatic arthropathy was reported in 16.1% of patients. The commonest clinical pattern was oligo-/monoarthropathy (45.6%) (**Figure 3**). Joint involvement was more common in erythrodermic psoriasis (>90% body surface area involvement) compared to patients who had less extensive skin lesions (**Figure 4**).

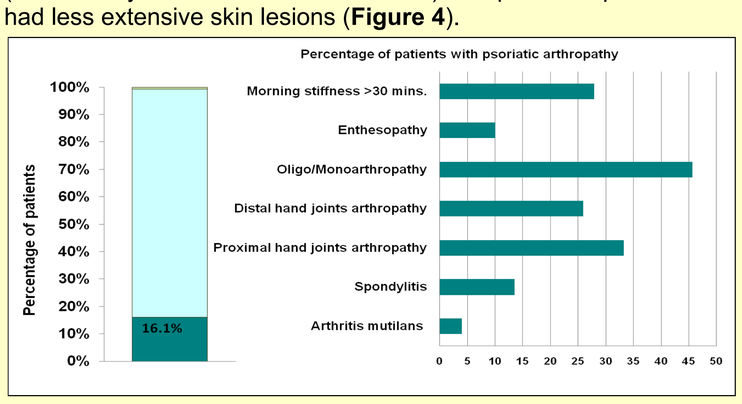

Figure 3: Joint involvement in psoriasis patients

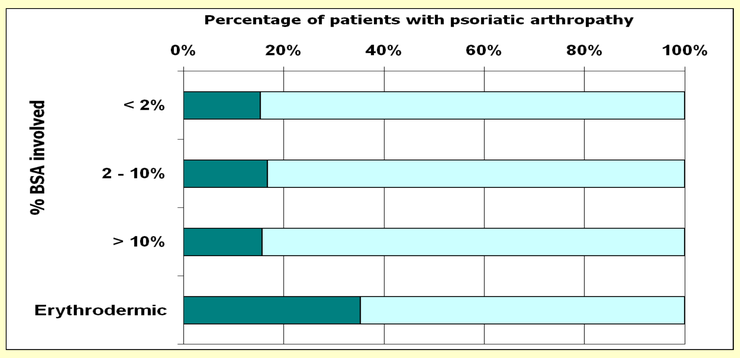

Figure 4: Relationship between prevalence of psoriatic arthropathy and extent of skin lesions

About two-third (63.7%) of patients had nail changes related to psoriasis (**Figure 5**). Prevalence of nail psoriasis increased proportionately with the extent of body surface area involvement of skin lesions

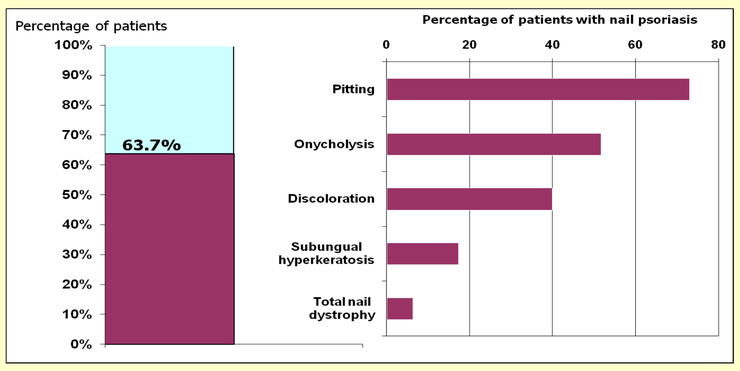

Figure 5: Nail changes in psoriasis patients

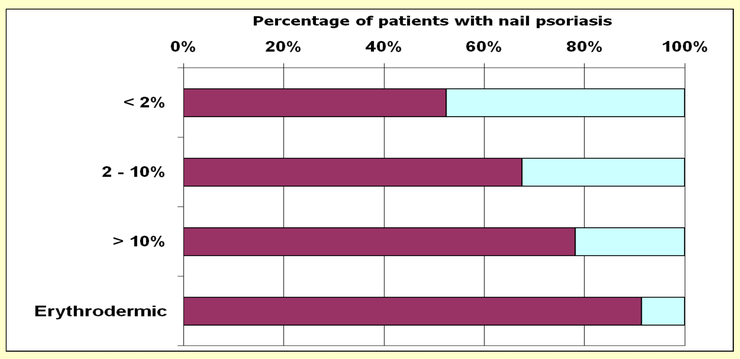

Figure 6: Relationship between prevalence of nail psoriasis and extent of skin lesions

Measurement of quality of life using Dermatology Life Quality Index (DLQI) was performed in 2,244 adult patients and 180 children/ adolescent patients. The mean DLQI score was 8.3 ± 6.51 (range 0 - 30) for adult patients and 7.5 ± 5.6 (range 0 - 26) for children/ adolescent patients (**Figure 7**).

Figure 7: Quality of life assessment in psoriasis patients

A number of patients had one or multiple concomitant diseases. Prevalence of the common comorbidities in psoriasis patients aged 18 and above were overweight 33.1%, obesity 20.7%, hypertension 25.1%, diabetes mellitus 17%, hyperlipidaemia 16.5%, and ischaemic heart disease 5.5%. Compared to the normal population, psoriasis patients had higher prevalence of diabetes mellitus (OR 2.83, 95% CI 2.51-3.19, p<0.001), overweight (OR 1.21, 95%CI 1.10-1.33, p<0.001) and obesity (OR 1.61, 95%CI 1.44-1.80, p<0.001).

Treatment for psoriasis received by the patients within 6 months prior to notification was recorded and analysed.

All patients were using topical treatment. The most popular mode of topical treatment was tar preparation (78.9%), followed by topical steroids and emollients. 4.3% of patients received phototherapy. Narrowband UVB was the most commonest phototherapy used (67.3%). Systemic therapy was required in 20.9% of patients. The most frequently used systemic therapy was methotrexate (15.6%), followed by acitretin, sulphasalazine and cyclosporin (**Figure 8**).

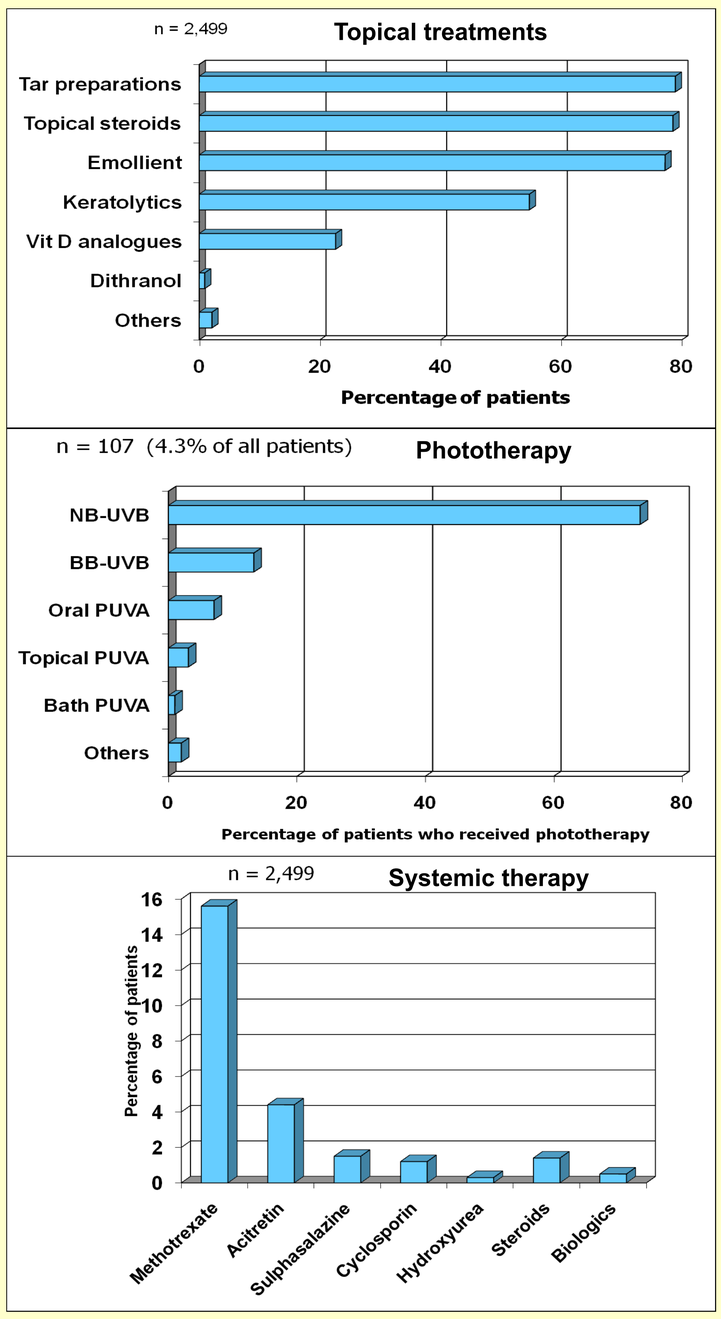

Figure 8: Treatment for patients with psoriasis

CONCLUSION

This registry provides a platform for future clinical research in various aspects of psoriasis. With a larger cohort and longer follow-up period, cost-effectiveness and outcome of various treatments as well as potential associations with other diseases can be investigated.

REFERENCES

1. DD Gladman, A Menter. Introduction/overview on clinical registries. Ann Rheum Dis 2005;64(Suppl II).
2. Arts DGT, De Keizer NF, Scheffer GJ. Defining and Improving Data Quality in Medical Registries: A Literature Review, Case Study, and Generic Framework. J Am Med Inform Assoc. 2002;9:600–611.
3. Marcus Schmitt-Egenolf. PsoReg – The Swedish Registry for Systemic Psoriasis Treatment. Dermatology 2007;214:112–117.
4. James T Elder. Psoriasis clinical registries, genetics, and genomics. Ann Rheum Dis 2005;64(Suppl II).
5. The Third National Health and Morbidity Survey 2006 (NHMS III) Vol 1 & 2. Institute for Public Health, National Institute of Health, Malaysia 2008.

ACKNOWLEDGEMENT

We would like to thank the Ministry of Health for financial support, the Clinical Research Centre for technical assistance and advice, as well as all doctors and staff of the participating dermatology centres who contributed to this registry.