



# A REVIEW OF THE MALAYSIAN PSORIASIS REGISTRY (MPR) 2007 - 2012



A. Mohd Affandi<sup>1,\*</sup>, F. A. Alias<sup>1</sup>, T. H. Adnan<sup>2</sup>, R. Baba<sup>3</sup>

<sup>1</sup> Department of Dermatology, Hospital Kuala Lumpur, <sup>2</sup> Biostatistics Unit, Clinical Research Centre, Kuala Lumpur, <sup>3</sup> Department of Dermatology, Hospital Melaka, Melaka, Malaysia

## INTRODUCTION

The Malaysian Psoriasis Registry (MPR) is a prospective, ongoing, systematic collection of data on patients with psoriasis in Malaysia. It was established in 1998 and was extensively revised in 2007. A new case report form was introduced, and a new centralized electronic database with web application was established to facilitate multi-centre data collection.

## OBJECTIVES

The objective of the MPR is to assess the magnitude of psoriasis in Malaysia. This registry also aim to facilitate research work pertaining to psoriasis in Malaysia.

## METHODOLOGY

Patients who are clinically diagnosed to have psoriasis by a registered dermatologist or by a 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 at the participating centre and every 6 months during follow-up visits. The case report form consists of a clinical data information and multilingual Dermatology Life Quality Index (DLQI) forms. A centralized electronic database with web application was implemented to facilitate online data entry.

## RESULTS

19 dermatology centres participated in this registry (15 government, 2 university and 2 private centres). A total of 7,914 patients with psoriasis were notified to the registry from October 2007 to December 2012. The number of patients notified to the registry each year are illustrated in Figure 1.

Male to female ratio was 1.3:1.

Ethnic distribution: Malay 50.8%, Chinese 21.8%, Indian 17.7%, Orang Asli 0.1% and other ethnic groups 9.6%.

Mean age of onset was 33.3 ± 16.7 (range 1 - 85 years).

16.5% of the patients had family history of psoriasis. Family members affected were either parents in 41.4%, siblings in 35.8%, children in 10.9% and other relatives in 25.5%.

51.3% of the patients reported one or multiple factors which aggravated their psoriasis. Common aggravating factors include stress (45.7%), sunlight (23.8%) and infection (11.7%).

Plaque psoriasis accounted for 87.5% of cases. This was followed by guttate psoriasis (4.6%), pustular psoriasis (1.9%), erythrodermic psoriasis (1.3%), flexural psoriasis (0.5%) and palmoplantar psoriasis 0.2% (Figure 2).

Majority of patients (63.0%) had body surface area involvement of 10% or less (Figure 3).

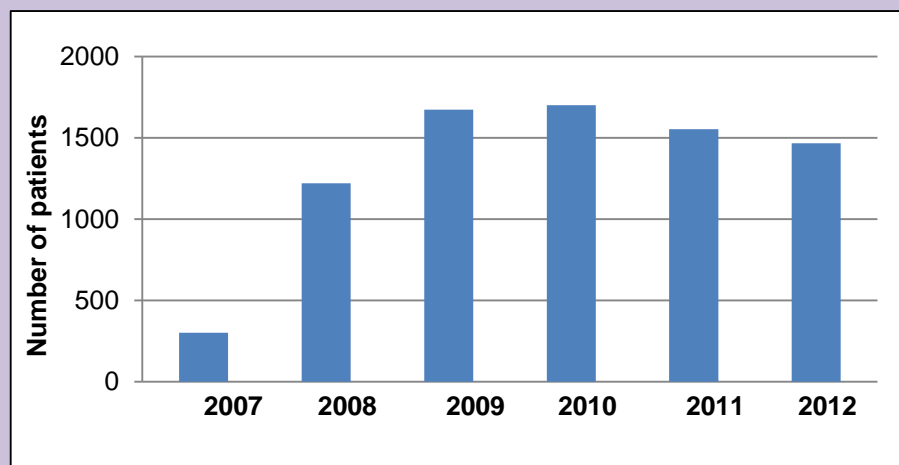


Figure 1: Patients notified to the Malaysian Psoriasis Registry from 2007 -2012

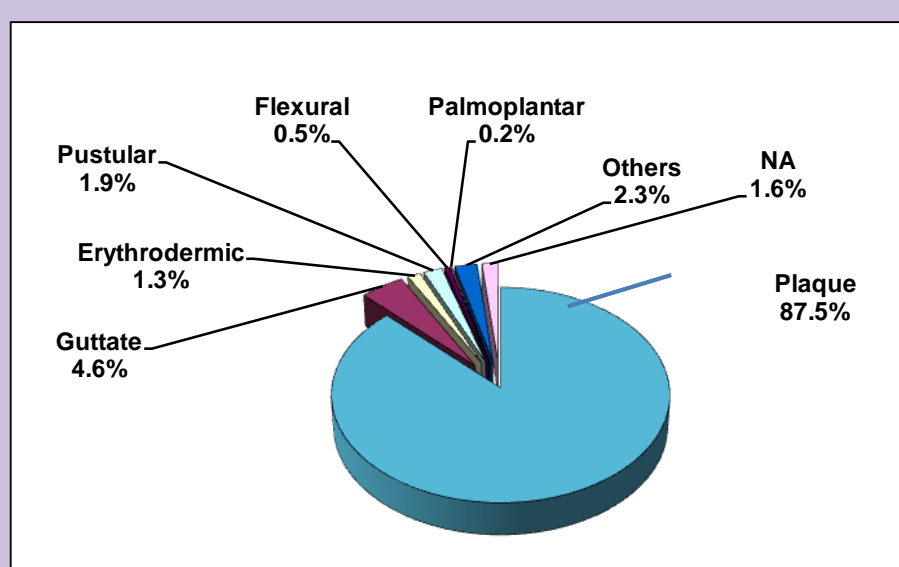


Figure 2: Clinical types of psoriasis

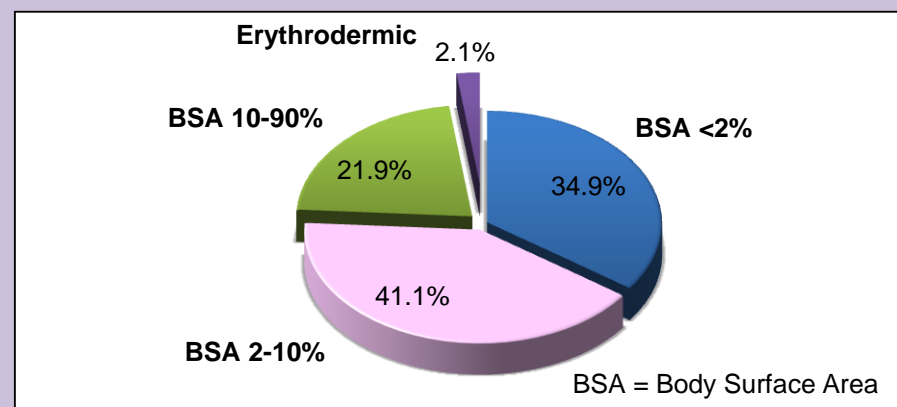


Figure 3: Extent of skin involvement of psoriasis

About two-third (60%) of patients had nail changes related to psoriasis. Prevalence of nail psoriasis increased proportionately with the extent of body surface area involvement of psoriasis (Figure 4). Commonest nail changes were pitting (70.5%) (Figure 5).

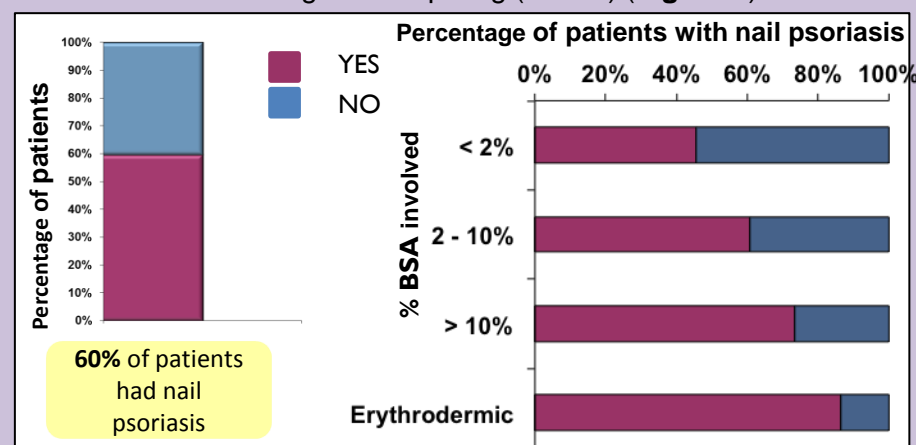


Figure 4: Nail changes and BSA involved in psoriasis patients

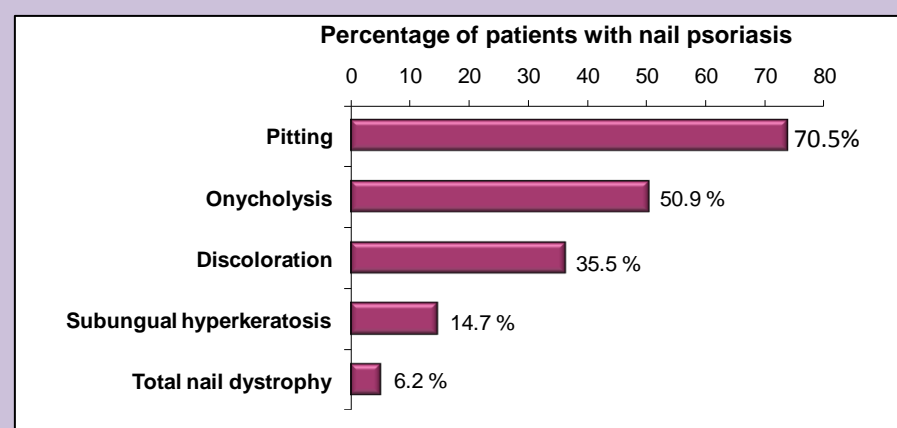


Figure 5: Features of nail psoriasis

Psoriatic arthropathy was reported in 14.8% of patients. Joint involvement was more common in erythrodermic patients compared to patients who had less extensive skin lesions (Figure 6). The commonest type was oligo/monoarthropathy (49.1%) (Figure 7).

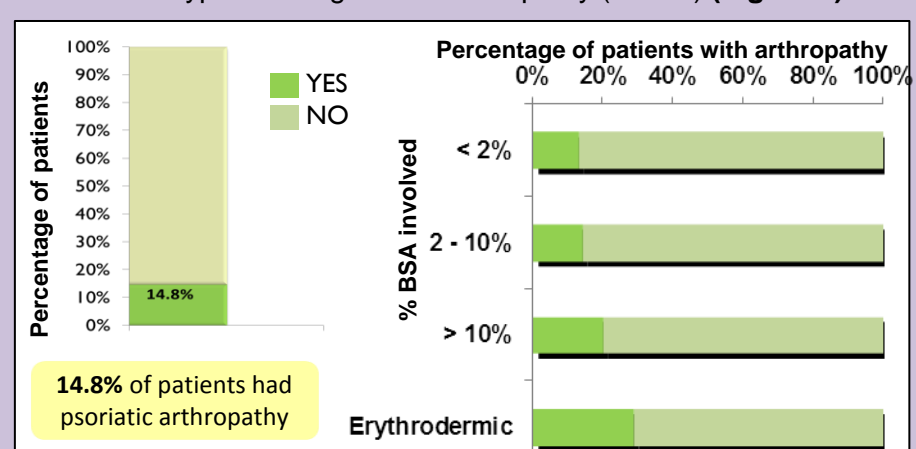


Figure 6: Psoriatic Arthropathy

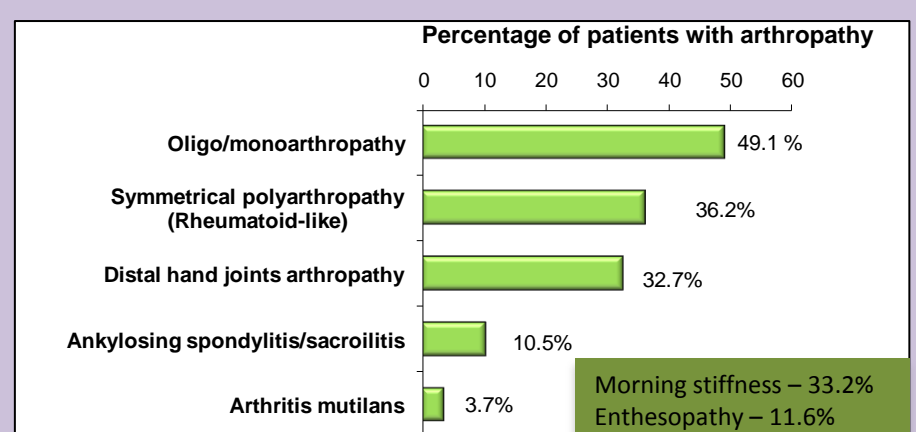


Figure 7: Clinical Types of Psoriatic Arthropathy

A number of patients had one or multiple co-morbidities. 32.1% of patients were overweight, 25.7% hypertensive, 21.4% obese, 17.6% had diabetes mellitus, 17.1% had hyperlipidaemia, 5.7% had ischaemic heart disease and 1.6% had history of cerebrovascular disease (Figure 8).

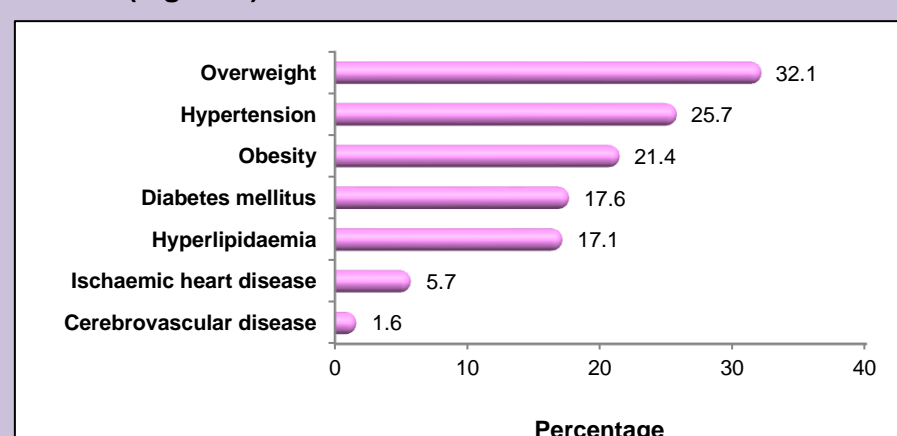
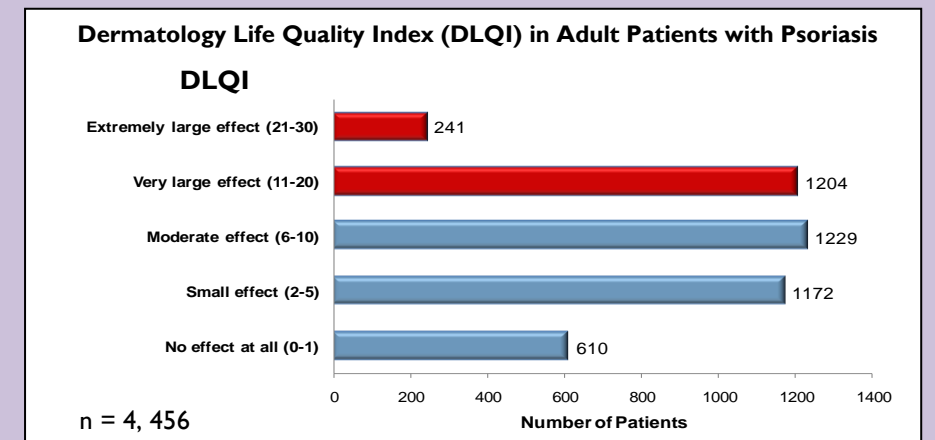
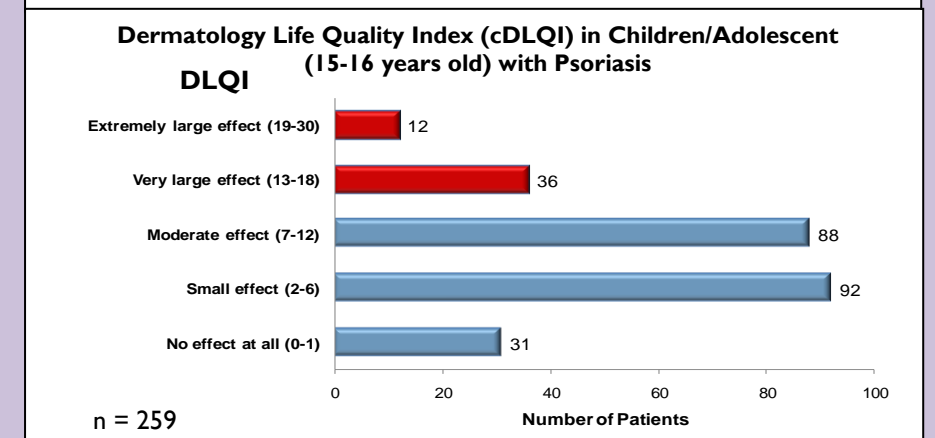


Figure 8: Co-morbidities in Adult Patients With Psoriasis

Measurement of quality of life using Dermatology Life Quality Index (DLQI) was performed in 4,456 adult patients and 259 children/ adolescent patients. The mean DLQI score was 8.4 ± 6.4 (range 0-30) for adult patients and 7.7 ± 5.5 (range 0 - 26) for children/ adolescent patients (Figure 9).



n = 4,456



n = 259

Figure 9: Quality of life assessment in psoriasis patients

Topical monotherapy was the only treatment given in 79.3% patients, while 4.6% of patients received phototherapy and 19.5% patients received systemic therapy. The different types of treatment given for each categories are illustrated in Figure 10.

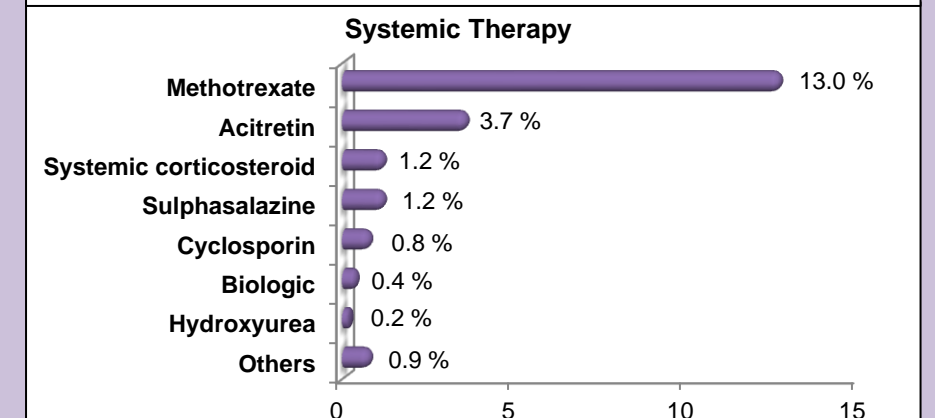
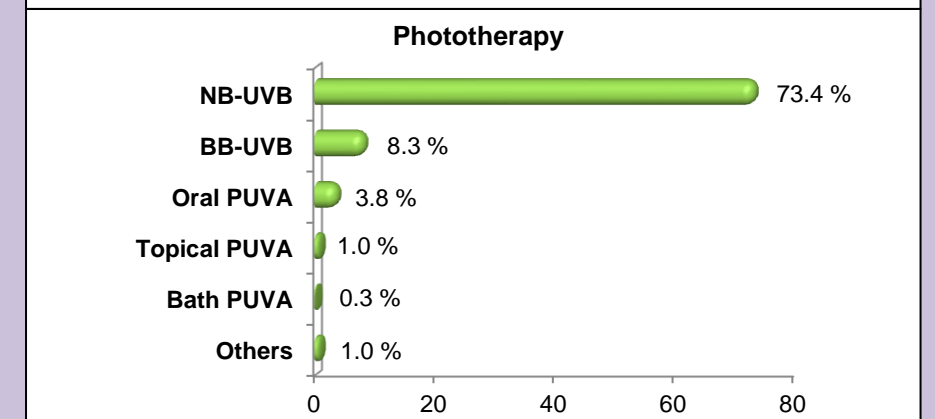
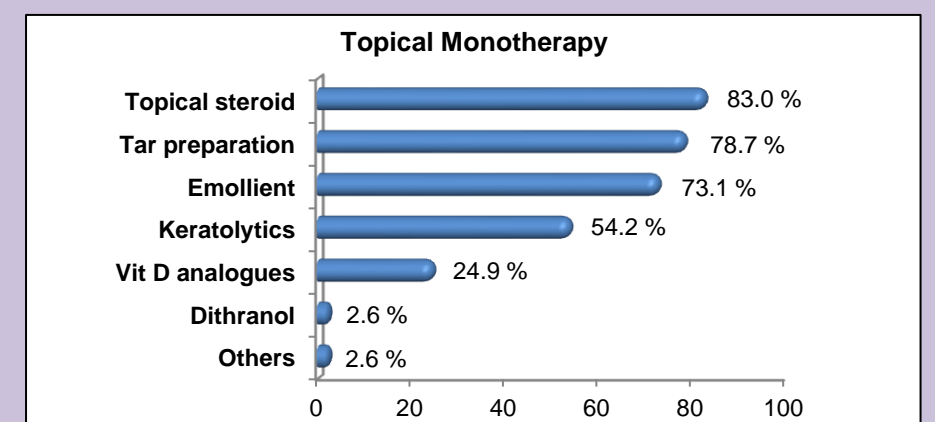


Figure 10: Treatment for patients with psoriasis

## DISCUSSION AND 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. We hope to get more participation from the private dermatologists, so that our data can represent patients with psoriasis in Malaysia more accurately.

## REFERENCES

- DD Gladman, A Menter. Introduction/overview on clinical registries. Ann Rheum Dis 2005;64(Suppl II).
- Arts DGT, De Keizer NF, Scheffer GJ. Defining and Improving Data Quality in Medical Registries: A Literature Review, Case Study, and Ge-neric Framework. J Am Med Inform Assoc. 2002;9:600-611.
- Marcus Schmitt-Egenolf. PsoReg - The Swedish Registry for Systemic Psoriasis Treatment. Dermatology 2007;214:112-117.
- James T Elder. Psoriasis clinical registries, genetics, and genomics. Ann Rheum Dis 2005;64(Suppl II).
- 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 Director General, Ministry of Health, Malaysia for permission to present this paper and also all doctors and allied health personnel in the participating centres.