The disease burden and biologics usage among patients with moderate-to-severe psoriasis: a 12 year Malaysian registry review (2007–2018)

Dr Suganthy Robinson[1], Dr Suganthi Thevarajah[1], Dr Tang Min Moon[1], Dr Tey Kwee Eng[2], Dr Teoh Tze Yuen[3], Dr Tang Jyh Jong[4], Dr Latha Selvarajah[5], Dr Tan Wooi Chiang[6], Suryaprakash Mishra[7], John Tiong[7], Jason Lew[7], Vidya Sagar AEC[8]

[1]Hospital Kuala Lumpur; [2]Hospital Sultanah Aminah; [3]Hospital Selayang; [4]Hospital Raja Permaisuri Bainun; [5]Hospital Sultan Ismail; [6]Hospital Pulau Pinang; [7]Novartis Corporation (M) Sdn Bhd, Malaysia; [8]Novartis Healthcare Pvt Ltd, Hyderabad

P1361

INTRODUCTION

- Psoriasis is a chronic, non-communicable, itchy, disfiguring and disabling disease with a significant negative impact on patient's quality of life (QoL)[1]. Nevertheless, there is limited information pertaining to the disease comorbidities, psychosocial impacts and biologic usage specifically in patients with moderate-to-severe disease in Malaysia. The objectives of this review are to study (i) the comorbidities (ii) quality of life and (iii) prescription rate of biologic agents among patients with moderate-to-severe psoriasis in Malaysia.

METHODS

- This is a multicenter longitudinal observational study. Data was obtained from a partially public funded national psoriasis registry. The registry is a nationwide prospective, ongoing, systematic collection of data of patients with psoriasis treated at 32 public hospitals and 2 private hospitals. Dermatologists input data into a standardized form during clinic visits at point-of-care which is then transferred into an electronic database. To maintain patient privacy, identifiers were removed from the data. All patients registered from January 2007 till December 2018 were included in this study[2].

RESULTS

- A total of 21,735 psoriasis patients were registered into the registry between 2007 and 2018. Stratified according to the percentage of body surface area (BSA) affected by psoriasis, 44.8%, 31.3%, 21.3% and 2.6% of the recruited patients had <5%, 5-10%, 10-90% and >90% involvement respectively. With regards to special site affliction, 81.3% had scalp involvement, 56.3% had nail involvement and 51.5% had facial involvement. Patients with moderate-to-severe psoriasis (BSA >10%) appeared to be at a relatively higher risk of various cardiovascular diseases and diabetes compared to the general population of Malaysia[3] (**Table 1**).
- The quality of life of moderate-to-severe psoriasis patients was also more adversely impacted as exemplified by the high mean DLQI score of 12.45 ± 7.1 compared to mild psoriasis patients (8.54 ± 6.4, $p < 0.0001$). **Table 2** compares the mean DLQI scores of moderate to severe psoriasis patients between our cohort and other countries[4-7]. The number of days off from work/school is also significantly higher in patients with moderate-to-severe psoriasis compared to mild psoriasis patients (1.42 ± 7.8 vs 0.27 ± 2.7, $p < 0.0001$).
- Among the DLQI domains, symptoms and feelings were found to be most affected followed by daily activities and leisure[2] (**Table 3**).

Table 1. Risk of comorbidities in moderate-to-severe psoriasis patients of Malaysia.

Comorbidities	Moderate to severe psoriasis patients[2] (%)	Population (general)[3] (%)	Risk (Moderate to severe psoriasis patients/General population)
Diabetes	15	8.3*	1.8
Hypertension	22.2	13.1*	1.7
Hyperlipidemia	15	9.1*	1.6
Obesity (BMI ≥ 30)	24.9	17.7	1.4

*Known prevalence was defined as self-reported of being told to have disease by a doctor or assistant medical officer (AMO)

Table 2. Moderate-to-severe psoriasis patients DLQI* mean score in different countries.

Country	Mean score	SD
Malaysia[2]	12.5	6.9
Europe/Canada[4]	10.3	7.2
Brazil[5]	7.2	6.8
Hungary[6]	6.8	7.4
Spain[7]	4.9	5.2

*The DLQI (Dermatology Life Quality Index) is calculated by summing the score of each question resulting in a maximum of 30 and a minimum of 0. The higher the score, the more quality of life is impaired; 0–1 no effect at all on patient's life, 2–5 small effect on patient's life, 6–10 moderate effect on patient's life, 11–20 very large effect on patient's life, 21–30 extremely large effect on patient's life

Table 3. DLQI – Individual domains for moderate-to-severe psoriasis patients of this Malaysia.

Q.No.	DLQI Question	Domain	% of patients impacted (scoring 3, 2, or 1)
1	Over the last week, how itchy, sore, painful or stinging has your skin been?	Symptoms & feelings	90.8%
2	Over the last week, how embarrassed or self-conscious have you been because of your skin?	Symptoms & feelings	78.7%
3	Over the last week, how much has your skin interfered with you going shopping or looking after your home or garden?	Daily activities	66.1%
4	Over the last week, how much has your skin influenced the clothes you wear?	Daily activities	64.9%
5	Over the last week, how much has your skin affected any social or leisure activities?	Leisure	66.0%
6	Over the last week, how much has your skin made it difficult for you to do any sport?	Leisure	66.2%
7	Over the last week, has your skin prevented you from working or studying? If "No", over the last week how much has your skin been a problem at work or studying?	Work & school	51.6%
8	Over the last week, how much has your skin created problems with your partner or any of your close friends or relatives?	Personal relationships	52.0%
9	Over the last week, how much has your skin caused any sexual difficulties?	Personal relationships	37.2%
10	Over the last week, how much of a problem has the treatment for your skin been, for example by making your home messy, or by taking up time?	Treatment	60.9%

- Although 40.3% of the registered patients had a DLQI of >10 and 23.9% had a BSA of >10%, only 1.72% were prescribed biologics in Malaysia, which is very low when compared to 14.05% in the USA, 11.81% in Spain, 11.23% in Germany, 10.50% in France, 9.21% in the UK, and 8.16% in Italy (**Table 4**).

Table 4. Proportion of moderate-to-severe psoriasis patients receiving biologics in different countries.

Country	% Receiving biologics
USA*	14.05%
Spain*	11.81%
Germany*	11.23%
France*	10.50%
UK*	9.21%
Italy*	8.16%
Malaysia**	1.72%

*Feb 2019 update data from Decision Resource Group (DRG) insights database; **Registry data[2]

CONCLUSIONS

This study revealed that moderate-to-severe psoriasis patients in Malaysia were at a higher risk for various cardiovascular comorbidities when compared with the general population, in addition to having more severely impaired quality of life. Despite having a high burden of illness and availability of a wide selection of efficacious and safe biologic agents which are recommended for the treatment of moderate-to-severe psoriasis, very few patients received biologics, especially in comparison with other countries. This points to a potential treatment gap in this group of patients whose more severe disease may warrant more efficacious treatment in order to modify the course of the disease.

REFERENCES

1. Global Report on Psoriasis (WHO) 2016. Available at: http://apps.who.int/iris/bitstream/10665/204417/1/9789241565189_eng.pdf
2. Malaysian Psoriasis Registry 2007 - 2018 (data on file)
3. National health and morbidity survey (Malaysia) 2015. Available at :http://www.moh.gov.my/moh/resources/nhmsreport2015vol2.pdf
4. Viguier M et al., The impact of psoriasis on quality of life in Europe and Canada. Journal of the American Academy of Dermatology 2018 79:3 Supplement 1 (AB287-)
5. Lopes N., Dias L.L.S., Azulay-Abulafia L et al., Humanistic and Economic Impact of Moderate to Severe Plaque Psoriasis in Brazil. Advances in Therapy 2019 36:10 (2849-2865)
6. Katalin P.A., Miklós S., Tamás C et al., Assessment of health-related quality of life in psoriasis patients in Hungary Orvosi Hetilap 2018 159:21 (837-846)
7. Tribó M.J., Turroja M., Castaño-Vinyals G et al., Patients with moderate to severe psoriasis associate with higher risk of depression and anxiety symptoms: Results of a multivariate study of 300 Spanish individuals with psoriasis. Acta Dermato-Venereologica 2019 99:4 (417-422)

FUNDING

This study was sponsored by Novartis Corporation (M) Sdn Bhd, Malaysia

ACKNOWLEDGEMENTS

The authors would like to thank the Director General of Health, Malaysia for permission to present this poster and Rupa De (Novartis) for design support

Poster presented at: Poster presented at 29th European Academy of Dermatology & Venereology (EADV) virtual Congress, October 29–31, 2020

Scan to download a copy of this poster