

# Psychological symptoms among patients with hemifacial spasm, essential blepharospasm and Meige syndrome

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## BACKGROUND

Facial spasms such as hemifacial spasm (HFS) (unilateral facial spasms), blepharospasm (persistent closure of eyes) and Meige syndrome (combination of blepharospasm and oro-mandibular dystonia) can cause significant disability and social embarrassment.

Previous studies have discussed quality of life (QoL), depression and anxiety symptoms in this population [1], however little is known about the impulsivity (as seen in other movement disorders), associated burden of stigma and suffering. To our knowledge, there is no Malaysian study on these conditions despite their higher prevalence in Asia [2].

## AIMS

This study is primarily aimed to determine prevalence of psychological (depression, anxiety and impulsivity) symptoms among patients with HFS, blepharospasm and Meige syndrome. Secondary objectives include assessment of their socio-demographic characteristics, quality of life (QoL), stigma and suffering experience.

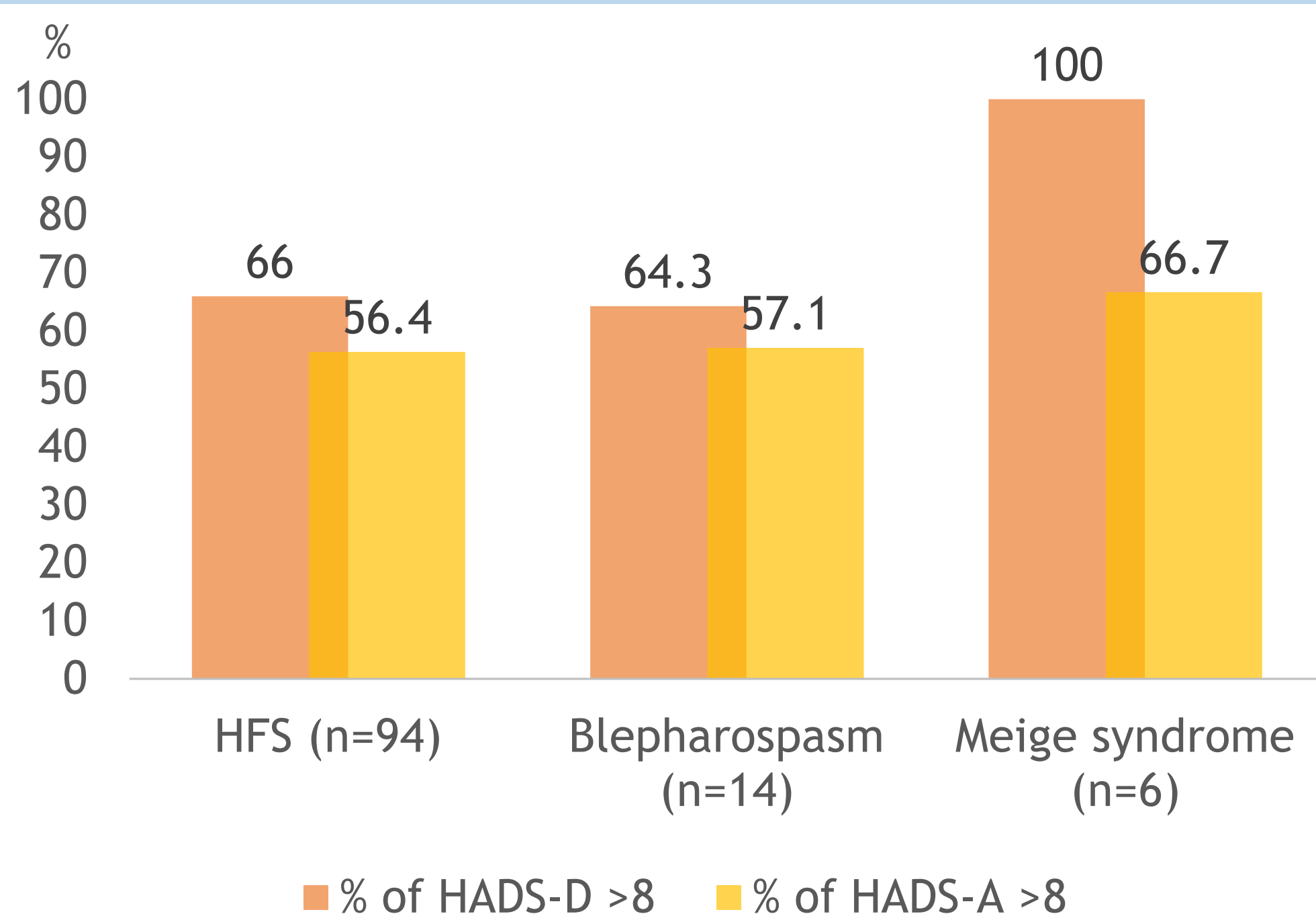
## METHODS

In this cross-sectional study, 114 patients were recruited from the Botulinum Toxin (BTX) clinic of University of Malaya Medical Centre, a university hospital in Kuala Lumpur, Malaysia. Scales utilised include Hospital Anxiety and Depression Scale (HADS), Barratt Impulsiveness Scale Version 11 (BIS-11), Stigma Scale for Chronic Illnesses 8-item version (SSCI-8), 7-item QoL scale for HFS (HFS-7) and Suffering Pictogram (SP). Facial spasms severity was assessed by three independent neurologists experienced in movement disorders, using the Jankovic Rating Scale (JRS). Statistical analysis was completed using IBM SPSS version 22.

## RESULTS

As Figure 1 presents, the prevalence of significant depressive and anxiety symptoms (HADS-D or HADS-A >8, respectively) was >50% in all three groups, being highest in the Meige syndrome group (100% and 66.7%, respectively; p=NS for between-group differences). No patient scored greater than the cut-off of 75 in BIS-11. 83.33% (n=5) of patients with Meige Syndrome reported experiencing stigma, followed by HFS patients (76.6%, n=72) and blepharospasm patients (64.3%, n=9). Mean JRS scores were mild-to-moderate (HFS 4.9±1.7, blepharospasm 4.1±2.1, Meige syndrome 4.2±1.8; p=NS for between-group differences).

**Figure 1** Percentage of subjects reported significant depressive and anxiety symptoms (n=114).



**Table 1** Psychological symptoms in HFS, blepharospasm and Meige syndrome.

Scale	Mean (SD)			One way ANOVA
	HFS (n=94)	Blepharospasm (n=14)	Meige syndrome (n=6)	
HADS-D (0-21)	8.4 (1.5)	8.7 (1.6)	10 (1.1)	0.033*
HADS-A (0-21)	8.2 (1.6)	8.1 (1.4)	8.2 (0.9)	0.970
BIS-11 (30-120)	40.5 (3.2)	39.5 (3.0)	39.3 (3.4)	0.424
SSCI-8 (8-40)	9.0 (1.4)	9.1 (1.5)	9.8 (1.3)	0.397
HFS-7 (0-28)	8.9 (2.1)	9.9 (1.8)	10.8 (2.2)	0.041*
<b>Suffering pictogram</b>				
Overall suffering (0-10)	4.1 (2.1)	4.0 (1.5)	3.7 (1.2)	0.847
Sum of eight items (0-32)	6.9 (6.8)	5.9 (4.5)	6.5 (2.5)	0.876

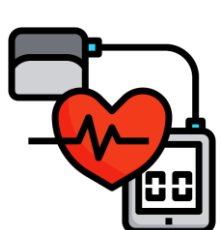


○ Predominance of females in the HFS (73.4%) and Meige syndrome (100%) groups.



○ Predominance of Chinese ethnicity particularly in the dystonia (blepharospasm and Meige syndrome) groups.

○ The unapparent rationale behind these ethnic differences suggests a need for further studies among Asia ethnic groups.



○ Hypertension was found to be the most common comorbidity, similar to findings from a meta-analysis [3].

○ This suggests possibility of hypertension being one of the risk factors for HFS.

○ Patients with Meige syndrome reported highest levels of depressive and anxiety symptoms, poorest QoL and experienced greatest amount of stigma among three groups.

○ This might be related to the presence of more widespread and disabling symptoms (e.g., difficulty swallowing), despite similar group mean scores in facial spasms severity.

## CONCLUSION AND NEXT STEPS

Depressive and anxiety symptoms were highly prevalent in our cohort of treated HFS, blepharospasm and Meige syndrome patients. Majority patients reported experiencing stigma. Our findings recommend psychological screening for above patient groups; clinicians' sensitivity towards stigma during consultation would facilitate in-time interventions.

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## REFERENCES

- Setthawatcharawanich S, Sathirapanya P, Limapichat K, Phabphal K. Factors associated with quality of life in hemifacial spasm and blepharospasm during long-term treatment with botulinum toxin. *Qual Life Res* 2011; 20: 1519-23.
- Wu Y, Davidson AL, Pan T, Jankovic J. Asian over-representation among patients with hemifacial spasm compared to patients with cranial-cervical dystonia. *J Neurol Sci* 2010; 298: 61-3.
- Leong JL, Li HH, Chan LL, Tan EK. Revisiting the link between hypertension and hemifacial spasm. *Sci Rep* 2016; 6: 1-5.