

Italian validation of the MIG-SCOG: a cognitive scale for migraine attack

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Introduction

The MIG-SCOG is a 9 items questionnaire to evaluate subjective cognitive symptoms during migraine attacks related to executive functions and language. The aim of the study was to evaluate the psychometric properties of the Italian version of the MIG-SCOG (I-MIG-SCOG) in patients affected by migraine without aura (MwoA).

Methods

The MIG-SCOG was translated into Italian. The first draft of the questionnaire was administered to 20 Italian healthy subjects to assess its comprehensibility. Then, the final I-MIG-SCOG was completed by 153 MwoA patients. To assess divergent validity, MwoA patients underwent Montreal Cognitive Assessment, Beck Depression Inventory and Apathy Evaluation Scale (see table 1).

Results

The I-MIG-SCOG was easy comprehensible. There were no missing data, no floor and ceiling effects; mean I-MIG-SCOG score was 7.54 ± 3.98 ; Cronbach's alpha was 0.814. The I-MIG-SCOG showed good poor correlation between I-MIG-SCOG and MoCA, BDI and AES. We divided the MwoA sample in two subgroups around the median value of 7 (group with I-MIG-SCOG score <7 and group with I-MIG-SCOG score equal or >7). Patients with high level of I-MIG-SCOG showed higher scores on BDI and AES than patients with low level of I-MIG-SCOG.

Conclusion

The I-MIG-SCOG is a reliable and valid instrument of easy and fast self-administration to evaluate subjective cognitive symptoms during migraine attacks. Moreover, our results showed that patients with higher I-MIG-SCOG score were more apathetic and depressed than those with low score, indicating an association between subjective cognitive symptoms during migraine attacks and depressive symptomatology.

Table 1: clinical and psychological features of MwoA patients

	Minimum	Maximum	Mean	Standard deviation
Age (years)	18	61	35.06	10.97
Education (years)	5	18	12.97	3.66
Disease duration (years)	1	40	13.25	9.70
Attacks per month	0	20	5.06	4.11
MIDAS score	0	75	23.50	16.58
HIT-6/78 score	37	76	59.98	7.91
VAS score	7	10	8.34	.84
MoCA total score	15.15	28.00	22.65	2.50
Visuospatial	1	4	3.31	.81
Executive	0	4	2.97	1.10
Attention	2	6	5.09	1.01
Language	1	6	5.20	.94
Memory	0	5	2.03	1.43
Orientation	4	6	5.92	.30
BDI-II	0	35	9.41	7.29
AES-S -Behaviour	4	19	7.75	2.41
AES-S-Cognitive	5	24	12.47	3.07
AES-S-Emotive	2	17	3.99	2.24
AES-S-Others	2	9	5.83	1.64
AES-S-Total	18	52	29.90	5.62
MIG SCOG	0	18	7.43	3.98

I-MIG-SCOG	SPESSO	QUALCHE VOLTA	MAI
1. Ti senti confuso			
2. Hai difficoltà a risolvere problemi rispetto alla tua velocità normale			
3. Hai difficoltà a seguire un percorso (guidando o camminando)			
4. Hai difficoltà a riflettere			
5. Hai difficoltà a concentrarti			
6. Hai difficoltà a comprendere chi ti parla			
7. Hai difficoltà a strutturare una frase o una conversazione			
8. Hai difficoltà a pronunciare il nome di altre persone			
9. Hai difficoltà a ricordare correttamente il nome degli oggetti			

References

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