

linguists. The instrument's psychometric properties were established by (1) ascertaining the test's sensitivity to the presence of aphasia, and (2) verifying the tool's validity and reliability. Participants included a group of age- and education-matched non-brain-damaged individuals (N = 106), a group of right hemisphere brain-lesioned patients (N = 20), and a group of left hemisphere aphasic patients (N = 52). To accomplish the second and third objectives, the Bedside MA-WAB-R was administered to a group of aphasic participants in the acute period (less than three months post-stroke), and a group of age- and education-matched participants (N = 20). Aphasic patients in the acute stage were tested twice on a seven-day interval (3 days and 10 days post-onset). All data were collected from the Neurology department at the University Medical Hospital Hassan II, and the study received approval from the ethics committee of the Faculty of Medicine and Pharmacy, Sidi Mohammed Ben Abdellah.

Results: Regarding the first objective, the results indicated that the MA-WAB-R is sensitive to the presence of aphasia, as revealed by the significantly worse performance of the aphasic group on all subtests relative to matched normal and right-hemisphere participants ($p = .000$). Analyses revealed excellent content and construct validity (correlations between subtests and AQ ranging from .5 to .8) as well as high inter-rater reliability, intra-rater reliability and test-retest reliability ($ICC(2,1) > .9$). For the second and third objectives, the results supported the test's sensitivity to the detection of aphasia in the acute phase, as confirmed by the significantly worse performance of aphasic patients relative to matched normal controls ($p = .000$). The instrument also proved as a reliable measure of language improvement in the acute period, as supported by better scores on the second testing point relative to the first across all subtests.

Conclusions: The MA-WAB-R is the first standardized assessment tool that can be used for a quick but reliable screening of aphasia in both chronic and acute clinical settings. The test can inform the initial diagnosis of aphasia, and guide a more comprehensive assessment of patients' spared and impaired linguistic abilities within a context receiving little attention in the aphasia literature.

Categories: Language and Speech Functions/Aphasia

Keyword 1: assessment

Keyword 2: aphasia

Keyword 3: stroke

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44 A Case Study of Non-Alcoholic Wernicke's Encephalopathy in a Young Man with Intractable Vomiting

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Objective: Wernicke's encephalopathy (WE) is an acute neurological condition caused by thiamine deficiency. The typical presentation is characterized by a triad of oculomotor abnormalities, gait ataxia, and altered mental status, though patients rarely present with all three symptoms. WE is a serious medical condition that is associated with high rates of morbidity and mortality if left untreated. It is most commonly seen in patients with severe alcohol use disorder; however, it has also been found in patients with thiamine deficiency due to other causes of malnutrition such as prolonged starvation, hyperemesis, dialysis, cancer, and geriatric surgery. Despite growing research demonstrating WE in non-alcoholic populations, it is frequently misdiagnosed in patients without an extensive alcohol-use history, particularly when they do not present with the typical clinical triad of symptoms. Thus, more knowledge about non-alcoholic WE is needed to improve diagnostic accuracy.

Participants and Methods: We present a case of a 26-year-old male with an unremarkable alcohol use history, who was diagnosed with WE following a 6-week period of excessive nausea and vomiting of unclear etiology. He presented to the ED three times prior to his diagnosis, and was treated with intravenous hydration, Zofran, and Pepcid. He presented to the ED for the fourth time with altered mental status and gait ataxia and was diagnosed with WE based on MRI findings. He was admitted and treated with high doses of IV thiamine and folate. His clinical course was tracked over time via outpatient

neurology examinations, and his cognitive functioning was assessed with an outpatient neuropsychological evaluation approximately six months post-discharge. Record review, including clinical notes, lab tests, and imaging results supplement his outpatient neuropsychological evaluation performance.

Results: Data from a comprehensive outpatient neuropsychological evaluation approximately six months after WE diagnosis is presented. His cognitive profile was characterized by impaired performance on measures of verbal fluency and memory, including encoding and retention of verbal and visual information (with minimal benefit from cueing). Given these impairments and continued functional declines related to cognitive deficits, he met criteria for a Major Neurocognitive Disorder. These results demonstrate persistent cognitive deficits beyond the acute WE period.

Conclusions: WE is a serious neurological condition that can have lasting cognitive effects if left untreated. This case demonstrates persistent cognitive impairments six months after WE diagnosis in a young patient with an unremarkable alcohol history. These findings highlight the necessity of increased diagnostic efficiency of WE in non-alcoholic patients, as immediate thiamine treatment is essential to the recovery process. Neuropsychological functioning at a longer interval will be useful in further elucidating cognitive prognosis as well as providing quality of life recommendations.

Categories: Memory Functions/Amnesia

Keyword 1: Korsakoff's syndrome/Wernicke's encephalopathy

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45 Longitudinal Performance on Three Words Three Shapes Test in Primary Progressive Aphasia

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Objective: Primary progressive aphasia (PPA) is a dementia syndrome characterized by initial development of progressive language deficits in the absence of impairment in other cognitive domains. It has historically been difficult to assess the presence or nature of true memory deficits in this population due to interference from language disturbance on task performance. The Three Words Three Shapes test (3W3S) is a relatively easy memory task that evaluates both verbal and nonverbal memory within the same modality and assesses different aspects of memory, including incidental encoding, effortful encoding, delayed recall, and recognition. Persons with PPA show a material-specific dissociation in performance on 3W3S; specifically, deficits in incidental encoding and recall are limited to verbal, not nonverbal material, in PPA, with preserved recognition of both types of information. However, it is unknown whether this pattern persists over time as the disease progresses.

Participants and Methods: Participants were 73 participants enrolled in an observational PPA research study at the Mesulam Center for Cognitive Neurology and Alzheimer's Disease (*Age* = 66.75 years, *SD* = 6.77; *Meducation* = 16.11 years, *SD* = 2.38; 51% female). Participants were subtyped as semantic (*n* = 15), logopenic (*n* = 27), or agrammatic PPA (*n* = 31) based on Gorno-Tempini et al., 2011, using 3W3S and other neuropsychological measures as described previously. Participants were followed at 2-year intervals and tests were administered longitudinally. All participants in the current study had 3W3S scores from at least two research visits collected between September 2012 and September 2022.

Results: There were no significant baseline group differences on 3W3S performance, except for better incidental encoding in the logopenic than the semantic group for shapes ($p = .040$) and words ($p = .043$). We then conducted a mixed measures ANOVAs to determine baseline within-person comparisons between words vs shapes. Within individuals, performance on incidental encoding, effortful encoding, and recognition was worse for words than shapes ($ps < .01$). There was an interaction between material and group for delayed recall ($p < .001$) such that there was a significantly larger discrepancy between word and shape recall in the semantic ($M_{diff} = -9.14$) compared to logopenic ($M_{diff} = -3.07$) and agrammatic groups ($M_{diff} = -2.13$). Repeated measures ANOVAs determined changes in scores over time