

No Relation Between Physical Disability Scores and Severity of PBA in MS

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Pseudobulbar affect (PBA) is a neurological condition of disinhibition of emotional expression characterized by uncontrollable, exaggerated, and often inappropriate outbursts of laughter and/or crying that may cause severe distress, embarrassment, and social dysfunction. PBA occurs secondary to a number of neurological disorders, such as Alzheimer disease, stroke, traumatic brain injury, amyotrophic lateral sclerosis (ALS) and multiple sclerosis (MS). Daniel Wynn, MD, Consultants in Neurology Multiple Sclerosis Center, Northbrook, Illinois, USA, presented results from a study to examine the relationships between physical disability and the severity of PBA in patients with underlying MS.

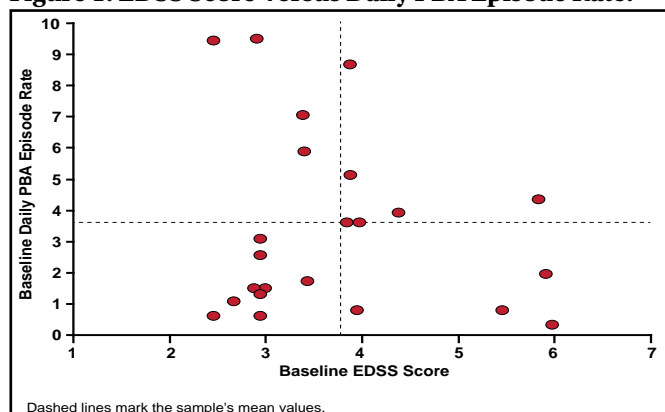
Data came from a single site of MS patients in the United States participating in a large, multicenter, placebo-controlled, Phase 3 clinical trial of dextromethorphan/quinidine for the treatment of PBA [Piro EP et al. *Ann Neurol* 2010]. Main inclusion criterion was the Center for Neurologic Study-Lability Scale (CNS-LS) [Moore SR et al. *J Neurol Neurosurg Psychiatry* 1997] score ≥ 13 (range is 7 [no PBA symptoms] to 35 [severe PBA]). Efficacy measures were change in CNS-LS score and PBA episode rates. Additional MS-related baseline data from retrospective chart review included MS type, time since diagnosis, and baseline score on the Expanded Disability Status Scale (EDSS).

The study enrolled 326 adult patients, 129 with MS and 197 with ALS. Table 1 shows data for 22 MS patients enrolled at a single site. Baseline CNS-LS scores at this site ranged from 15 to 33 (mean=23.9), consistent with moderate to severe PBA. However, baseline EDSS scores ranged from 2.5 to 6.0 (mean=3.84), consistent with mild to moderate physical disability. Baseline PBA daily episode rates ranged from 0.29 to 9.5 (mean=3.4). No correlation was observed between EDSS scores and CNS-LS scores or between EDSS scores and PBA daily episode rates (Figure 1).

Table 1. MS Type and Time Since MS Diagnosis.

MS Type	n (% of Single-site sample)	Time Since MS Diagnosis (years)		
		Mean	Median	Range
Relapsing-Remitting	12 (55%)	12.8	10.7	0.3-26.7
Secondary Progressive	8 (36%)	18.4	12.6	3.0-46.7
Primary Progressive	2 (9%)	7.1	7.1	3.6-10.6
All	22 (100%)	14.3	11.1	0.3-46.7

Figure 1. EDSS Score Versus Daily PBA Episode Rate.



This trial showed no association between physical disability scores and PBA severity, suggesting that MS patients may have neurobehavioral disorders such as PBA early in the disease.

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