

# Characterization of patients with Primary Progressive Aphasia and association with neuropsychiatric symptoms

Rafael Aránguiz Loyola<sup>1</sup>, Michelle Herrera Verdejo<sup>2</sup>, Danka Scheuermann Cruces<sup>3</sup>, Roberto Sunkel Maldonado<sup>4</sup>

<sup>1</sup>Neurologist; Instituto Nacional de Geriatria, Clínica Dávila; Chile, <sup>2</sup>Geriatric's Resident; Universidad de Santiago de Chile; Chile <sup>3</sup>Phonoaudiologist, Instituto Nacional de Geriatria, Chile <sup>4</sup>Psychiatrist, Instituto Nacional de Geriatria, Department of Psychiatry and Mental Health Universidad de Chile East Campus; Chile



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## Background

Primary Progressive Aphasia (PPA) is a syndrome characterized by a prominent language deficit, insidious beginning and gradually progressive evolution. This syndrome can be classified in three variants or subtypes: Nonfluent/agrammatic, logopenic and/or semantic. Patients with PPA may develop neuropsychiatric symptoms (NPS) with a variable pattern of presentation according to each aphasia subtype. The importance of these symptoms lies on their association with higher mortality, quality of life deterioration, caregiver overload, institutionalization and health costs.

## Objectives

The objective of the present study was to characterize the patients with PPA diagnosed in our center, in order to assess the prevalence of NPS in this group (measured with NPI Q scale), the distribution by each variant and to estimate the association between scholary level and age of PPA onset.

## Materials and methods

The study design was descriptive cross-sectional

- Inclusion criteria: patients with PPA diagnosed in our center, "Instituto Nacional de Geriatria" (INGER), located in Santiago de Chile, between January 2017 and September 2018
- Exclusion criteria: patients with records of vascular lesions or other medical conditions that could explain the cognitive impairment and/or language disorder, as well as patients with clinical history of neuropsychiatric diseases

Nonparametric statistics has been applied using STATA Software

## Results

38 were subjects were included, 3 of them were excluded.

Table 1: General characteristics of the study group

Variable	Description		
Age, at time of diagnosis	Mean 75,88 years (SD 6,11)		
Scholarship	Mean 8,08 years (SD 5,60)		
Diagnostic delay	Mean 3,42 years (SD 2,93)		
	N	%	
Sex	Female	21	60%
	Male	14	40%
Variants or subtypes	Semantic	12	34,28%
	Logopenic	10	28,57%
	Agrammatic	3	8,57%
	Mixed	10	28,57%

No significant differences in the distribution of the characteristics from table 1 according to the PPA variant.

Figure 1: Prevalence of neuropsychiatric disorders in patients with PPA

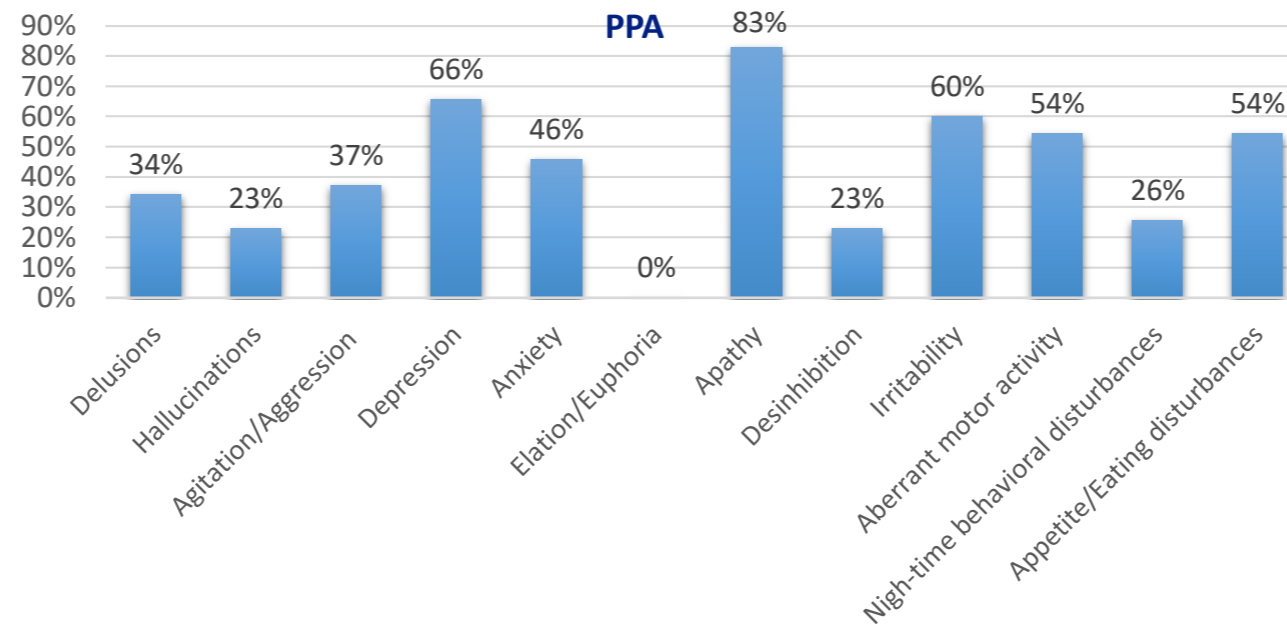
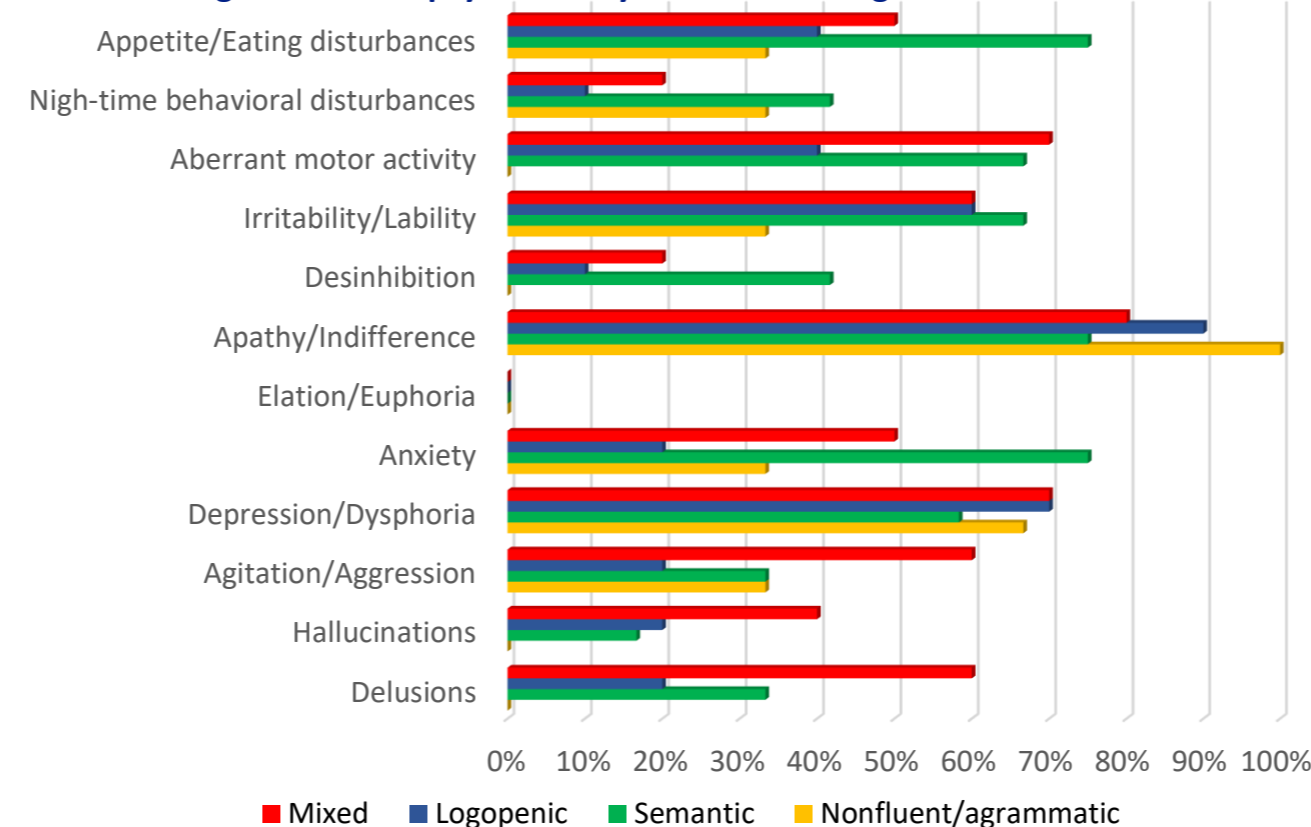
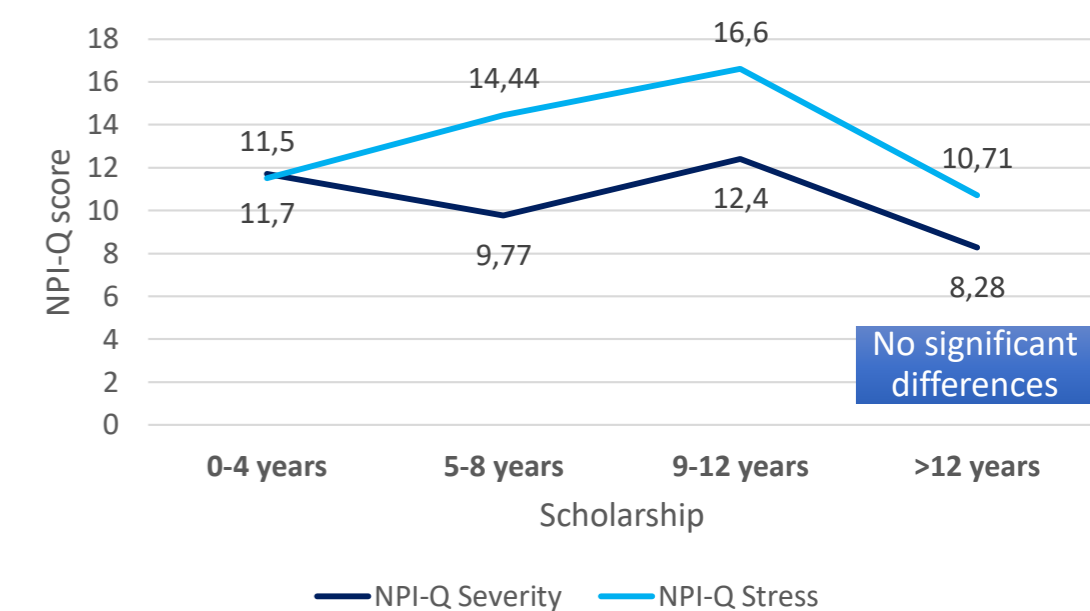


Figure 2: Neuropsychiatric symptoms according to the variant of PPA



We observed a significant difference on anxiety symptoms depending on PPA variant, being more prevalent in semantic variant (p 0,05) (Figure 2). We found no difference in PPA age of onset or NPS severity, according to schooling. (Figure 3)

Figure 3: NPI Q average according to schooling



## Discussion

Prevalence of general NPS and its distribution according to PPA subtype were not different than previous published studies. However, considering that INGER is a tertiary national reference Dementia center, it's necessary to highlight the low prevalence of PPA in addition to the low proportion of agrammatic PPA subtype. Further studies are required to explain these findings.

## References

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2. Olney, Nicholas T., Salvatore Spina, and Bruce L. Miller. Frontotemporal Dementia. *Neurologic clinics* 35.2 (2017): 339–374