

**Short Commentary***Open Access, Volume 3***Anxiety as neuropsychological symptom of aphasia****Marcos Altable<sup>1\*</sup>; Pilar Raigal<sup>2</sup>; Juan Moisés de la Serna<sup>3</sup>; Sara Mena<sup>4</sup>**<sup>1</sup>Private Practice of Neurology, Neuroceuta, (Virgen de Africa Clinic), Ceuta, Spain.<sup>2</sup>Complutense University of Madrid, Madrid, Spain.<sup>3</sup>Department of Education, International University of La Rioja (UNIR), Madrid, Spain.<sup>4</sup>Private Practice of Neuropsychology, Neuredy, Ceuta, Spain.**\*Corresponding Author: Marcos Altable**

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**Short commentary**

Aphasia causes a significant limitation on the person who suffers it since communication is essential for the human being. Among the behavioural changes observed in people with aphasia, we can highlight impulsive responses, rejection and states of intense anxiety [21].

People with aphasia face daily challenges from impaired communication skills. This can be a source of stress and anxiety, as well as other neuropsychological problems (depression, behavioural changes, aggressiveness / apathy, among others).

Aphasia is a neuropsychological syndrome characterized by impaired language, which can affect speech production (spontaneous speech, naming, and repetition) and listening comprehension, as well as the ability to read and write. Aphasic syndromes are frequently classified according to performance on verbal repetition tasks [2]. Consequently, aphasias are broadly classified into two groups: aphasias characterized by altered verbal repetition, so-called perisylvian aphasias (Broca and Wernicke's aphasias); and those with preserved verbal repetition,

called transcortical aphasias. Aphasia occurs mainly because of brain damage in the left hemisphere, usually due to stroke [22].

About 25-40% of stroke survivors experience aphasia, as well as all the problems derived from it, such as social avoidance and decreased attention. These problems are related to a physical dependency with which it is usually accompanied [13].

Previous research has shown that stroke is commonly associated with generalized emotional changes (depression, anxiety, irritability, apathy, impaired consciousness) [4,16,24,30]. These psychological and behavioural disturbances may be a consequence of distant and focal brain changes caused by injury or stroke [13], which could disrupt the brain networks involved in controlling the state of mood and behaviour [6,13,15]. Nevertheless, emotional changes may also be related to adjustment problems in the imposed changes in life, resulting from cognitive and motor deficits [1]. Furthermore, factors such as personality traits [8,23,37], coping strategies, family support and premorbid mood disorders [19,28,32], they can also influence the results. All of this suggests the need to adopt a multidimensional approach to identify the multiple factors that contribute

to the emotional and psychological consequences of aphasia after stroke. Among those mentioned above, anxiety is one of the most frequent emotional consequences of stroke [19].

The prevalence of anxiety in stroke victims is estimated between 20 and 24% [11]. However, this figure may be poorly represented, as anxiety disorder detection tools are not always suitable for people with aphasia, a reason that explains why this stroke population is frequently excluded from anxiety studies [11]. Previously [6], it has been reported that 44% of people with aphasia have significant levels of anxiety, as revealed by the questionnaires completed by the relatives of patients with aphasia, this prevalence being higher than that found in the general stroke population (20-24%) [11,29,33]. Another study, based on self-reports or surveys of a sample of stroke patients, found no significant difference in the prevalence of anxiety between an aphasic group and a non-aphasic group [16]. However, the authors found that a higher level of anxiety was associated with repetition and comprehension problems.

An important area of concern and research among neuropsychologists and logopedists working with people with aphasia is how anxiety levels affect language performance and how this can interfere with clinical decision making [9,10]. The inability of aphasic patients to use language to communicate effectively can precipitate excessive emotional reactions (i.e. state of anxiety, frustration, irritability) [20,34] during language tests. Therefore, the anticipation of making verbal mistakes or the inability to perform a given task can be perceived as a stressful situation that triggers frustration and anger [20]. This means that in clinical settings, existing language deficits can be reinforced by the anxiety reaction that can lead to inaccurate conclusions about the clinical profile and severity of aphasia and the effectiveness of therapeutic interventions.

Interestingly, despite the relevance and possible clinical implications of anxiety in these types of patients, very few studies have addressed its impact on language performance in the aphasic population [10,26,27]. Furthermore, there is limited evidence on contributing factors (i.e. premorbid personality traits and location of the lesion) and behavioural, psychological, and physiological characteristics of the anxiety response in aphasia. Relevantly, it is still unclear whether people with brain damage will have a physiological response similar to healthy subjects exposed to stressful events, and how injuries that affect the areas involved in modulation to a higher level of autonomic response, can alter this reaction.

On the other hand, the direct and remote effects of the injury can also play an important role, since the key areas involved in the subjective evaluation of stressors and the regulation of the associated autonomic and behavioural consequences can be affected. Aphasia in some patients will continuously put his job at risk, making their social performance more difficult, which increases anxiety levels, and a reduction in self-esteem associated with depressive symptoms. Emotional changes that mainly affect in the first year after the stroke, between 53 to 80% of patients [36]; that over time they will be regulated as the person learns to live and correctly manage its effects through the work of the speech therapy [5,7,12]. Hence, it is recommended that the patient with aphasia receive support from a mental health professional to regulate their emotional states. Helping them

to adjust their lives to the new reality knowing that it is changing as the speech therapy intervention progresses [3], avoiding associated problems that can range from excessive fatigue or sleep disturbances to personality changes [17,31,36].

Most patients with aphasia, show a high level of anxiety and anguish, these being proportional to the level of awareness that the patient has about their situation. And it is that anxiety does not have to be something bad or negative. However, sometimes it is necessary to be able to adapt to the conditions of the environment [14]. Then, it is reasonable that people suffering from aphasia develop anxiety processes, since their conditions regarding the environment have changed, and they must adapt to it.

The problem occurs when anxiety becomes pathological, and symptoms such as dependence on other people, fears of new and different situations. It is considered pathological when the intensity and duration are excessive, and limit the daily life of the person and their relationship with the environment [35].

Therefore, the reactions of the cognitive system include insecurity and lack of concentration, among others. The physiological changes could be a high degree of activation of the autonomic nervous system and the somatic nervous system, causing reactions such as dry mouth, muscle tension and sweating. Concerning the motor system, we could observe difficulties when it comes to making movements controlled, avoidance of situations, or even aspects that we could identify as mild dysphemia [35].

For all these reasons, anxiety can be a real problem when it comes to progressing in the therapeutic intervention and, therefore, in improving aphasia. All the difficulties mentioned above can limit or cause problems when it comes to developing a right rehabilitation plan with this kind of patient.

It is imperative to highlight that the rehabilitation of aphasia, apart from being based on aspects such as the relearning of certain aspects of language and communication, should encourage help to the patient to improve these states of anxiety, support him to face the new situation and trust yourself, avoid frustration-related issues, and motivating for maximum recovery.

Let us not forget that a good emotional state is essential for proper rehabilitation of communication.

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