

# Neurocognitive Disorder

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## ABSTRACT

Neurocognitive disorder is a general term that describes decreased mental function due to a medical disease other than a psychiatric illness. The most common causes of neurocognitive disorders include: degenerative conditions affecting the brain and nervous system, including dementia such as Alzheimer's disease, Parkinson's disease, multiple sclerosis, and Huntington's disease. Neurocognitive disorder due to traumatic brain injury is diagnosed when persistent cognitive impairment is observed immediately following the head injury, along with one or more of the following symptoms: loss of consciousness, posttraumatic amnesia, disorientation and confusion, or neurological impairment. The mainstay of treatment includes anti-psychotics and psychotherapies.

**Keywords:** Anti-psychotics, Degenerative disorder, Neurocognitive, Traumatic brain injury.

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## INTRODUCTION

Memory, problem-solving, and perception are just a few of the cognitive functions that can be affected by neurocognitive disorders. Cognitive function that is intimately connected to the cellular and molecular activities of specific brain regions, neural pathways, or cortical networks in the brain substrate is known as neurocognitive function.

Neurocognitive disorders previously referred to in the DSM-IV dementia are disorders that involve impairment in cognitive abilities such as memory, problem-solving, and perception.<sup>1</sup>

## CASE DESCRIPTION

A 35-year-old male was admitted with complaints of irritability, confusion, difficulty in remembering and focusing, disturbed sleep and appetite, low mood, poor self-care came out as decreased interest in earlier pleasurable activities for the past 3 months, irrelevant talk, physical and verbal aggression, increased agitation, and trouble in performing daily activities for 1 month. The patient had previous history of the same complaints and got treatment in a private hospital. The patient has improved his conditions after his treatment schedule.

## HISTORY COLLECTION

Patients experiencing these symptoms 1 year after having a history of brain injury.

## MENTAL STATUS EXAMINATION

From the mental status examination, the patient had decreased psychomotor activity and impairment in cognitive function. The patient looks anxious (temperature – 37.2°C, respiration rate – 20 breaths/minutes, pulse – 84 beats/minutes, blood pressure – 130/80 mm of Hg), and patient's sleep routine is disturbed.

## CLINICAL MANIFESTATION

Patient presented with the complaints of the following:

- Irritability.
- Confusion.

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- Difficulty in remembering and focusing.
- Disturbed sleep and appetite.
- Low mood and poor self-care.
- Irrelevant talk.
- Physical and verbal aggression.
- Increased agitation.
- Trouble in performing daily activities.

## INVESTIGATIONS

Sr. creatinine – 0.85 mg/dL, Sr. urea – 16 mg/dL, Sr. sodium – 139 mEq/L, Sr. potassium – 4.8 mEq/L, and Sr. chloride – 106 mEq/L.

## IMPRESSION

Based on the ICD-10 classifications, the patient was diagnosed with F06.7 – mild cognitive disorder.

## TREATMENT

The patient received tab. Olanzapine – 5 mg once a day, tab. Fluoxetine – 20 mg once a day, tab. Divalproex – 500 mg once a day, and tab. Topiramate – 50 mg once a day, then the patient underwent a number of psychotherapies, including group therapy, cognitive therapy, and individual therapy. The patient's condition was now better. The nursing care plan was based on the patient's top priorities, and the patient was continuously monitored for vital

signs. Medication administration was seen directly, and if required, an intravenous infusion was given. The patient also received the right nourishment and was helped with various therapies.<sup>2</sup> At discharge, the patient's family was informed about drug complaints, the community's availability of rehabilitation services, and the significance of follow-up.

## FOLLOW-UP

After 20 days of hospitalization, the patient received a discharge, his physical and mental health had improved, and he could now continue with his daily activities. Now, the patient regularly attends therapy sessions and other complementary therapies.

## DISCUSSION

A generic term used to describe diminished mental function brought on by medical conditions other than psychiatric illness is "neurocognitive disorder". It is often used synonymously with dementia. The prevalence rate is expected to be around 40/1000 after the age of 60 and progressively rises to 180/1000 after the age of 75 until reaching nearly one in two individuals at the age of 90. After the age of 60, the prevalence rate is anticipated to be around 40/1000, and it gradually increases to 180/1000 after the age of 75 before reaching nearly one in two people at the age of 90. The signs and symptoms of neurocognitive disorder include – headache, especially in those with a concussion or traumatic brain injury, inability to concentrate or focus, short-term memory loss, trouble in performing routine tasks such as driving, difficulty in walking and balancing, and change in vision. The diagnosis is based on ICD-10 criteria, history taking, physical examination and

mental status examination, blood investigations, and other special investigations like CT head and MRI head. The treatment includes pharmacological management like tab. Olanzapine – 5 mg once a day, tab. Fluoxetine – 20 mg once a day, tab. Divalproex – 500 mg once a day, and tab. Topiramate – 50 mg once a day. Psychotherapies such as cognitive therapy, motivational and enhancement therapy, interpersonal therapy, and group and family therapy were given to the patient.<sup>3</sup>

## DECLARATION OF THE PATIENT

The author makes it clear that they have the necessary patient consent paperwork on hand. The patient has agreed in this form to the publication of clinical data in this journal. The patient is aware that his identity and name will remain private at all costs.

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