

Alzheimer's Disease and You: Can Alzheimer's Abduct Consciousness?

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Editorial

Alzheimer's disease (AD) is an irretrievable, neurodegenerative disorders characterized by diverse features of diminished consciousness [1]. This degenerative nerve disorder is characterized by ample loss of self. Worldwide currently 35 million people are affected by AD [2]. Throughout the course of the AD, proteins accumulation occurs in the brain to form pathogenic structures called extracellular senile plaques and intracellular neurofibrillary tangles [3]. This leads to the loss of connections among nerve cells and ultimately degeneration of neurons. The utmost common early symptom of AD is the trouble in recalling short-term memory [4]. For example unable to recall names, or where they place their keys or disoriented even in familiar places. Alzheimer's is a progressive disease [5]. This means that as the disease loans, disease status is also advanced. As this occurs, more brain's areas are dented and consequently more symptoms appear. In the advance stages of AD, symptoms can include difficulties with language, mood swings, loss of motivation, non-managing self-care and behavioral issues. There are some enduring questions on how AD patient are aware of their declining cognitive abilities, how they retain a sense of individuality or morality, or whether they can still connect with their friends or loved ones. Emerging developments in neuroscience have facilitated scientists to more specifically examine the brains of the AD patients, proposing that while dementia alters some features of consciousness, others are extraordinarily spared.

Researchers have started combining the fact that how the damage of some functions, however the conservation of other functions, changes consciousness in AD. Gil et al. examined numerous features of self-consciousness (SC) in patients with probable mild or moderate AD [6]. In this study a marked association was reported between SC and dementia. The furthestmost reported discrepancy in consciousness were awareness of cognitive insufficiencies, moral judgments then prospective memory and lowest disturbed features were awareness of identity as well as mental depiction of the body. In the Mini Mental State (MMS) score a significant correlation was found for anosognosia and moral judgments. Furthermore, irrespective of MMS score consciousness of identity was flawless. Anosognosia is the mostly reported discrepancy in consciousness. The patients with mild cognitive impairment (MCI) are usually aware of their memory deficit but AD patients may be uninformed. Kalbe et al. investigated the linkage of cognitive domains in patients with very mild AD and subjects with MCI [7]. In this study the self-report of cognitive troubles were compared for AD and MCI patients. The denouements suggested considerably more cognitive impairment for AD patients with respect to caregivers MCI patients. But AD patients complained significantly less cognitive dysfunctions. These aforementioned signs advocate that only several facets of consciousness and self-awareness are doubtlessly steal in AD.

Alzheimer's pathology impedes with the creation of memories and it's one of the major symptoms. Memory deficits are linked with worsening of consciousness in dementia [8]. For example, AD patients cannot guess how they will remember episodic memory such as, indicating to a particular impairment in awareness of their personal memories, however, they can precisely predict how well they will recall semantic information in future. Lipinska et al. examined the recognition tests of general knowledge questions in both normal

aging and patients in an early phase of AD [9]. The completions indicated intact monitoring of stored information in AD despite deficits in knowledge retrieval and relative independence between level of common knowledge and Feeling-of-Knowing (FOK) accuracy in normal aging and AD. Souchay et al. studied the role of episodic memory FOK in patients with AD, elderly partakers and younger adults [10]. The consequences specified dementia-linked arrears on the recall and recognition tests. AD patients showed diminished FOK correctness with respect to elderly participants. This outcome specifies that early AD is connected with an insufficiency in episodic memory.

The medial temporal, lateral temporal, parietal and frontal lobes of the brain may engender consciousness by championing recall of memory, self-referential concoct and self-credentials. But in AD brain atrophy begins in the aforementioned zones [11]. For AD patients in temporal and parietal lobes, metabolism is abated that lead to alteration of consciousness. Moreover, it's audacious for AD patients to realize one's personality. The network connecting frontal, parietal and temporal lobes are compromised in AD. In the initial stage of AD, medial temporal lobe is primarily affected but at advanced stage total network effete. Medial temporal lobe is crucial in case of AD patients. It has been found that in the medial temporal lobe, the hippocampus binds background information about an experience into memory, nonetheless must communicate through the brain to stock these specifics into long-term memory. Consequently, disturbed sense of awareness might start along with the early damage to the medial temporal lobe.

Consciousness is the summation of sentience, access to information, as well as self-knowledge [12]. In case of AD patient's summation of sentience and access to information are relatively sound. Self-knowledge is strongly linked to episodic memories. Indicator of impaired consciousness in AD patients includes difficulty in remembering semantic information particularly personal experiences and these impairments are often seen along with the problems of episodic memory. Since dementia often alters an individual's sense of time perception, this temporal disconnect may perhaps additionally damage an individual's capacity to correctly place themself in the setting of past and future.

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Competing Interests

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