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Diogenes syndrome - causes and treatment of pathological hoarding and self neglect

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ABSTRACT

Introduction

Diogenes syndrome is a behavioral disorder typically described in physically neglected people living in extreme poverty, unsanitary conditions and self-imposed isolation, who often refuse outside help and tend to accumulate unusual objects. This syndrome is gaining increasing attention in the world of neurology and psychiatry.

The aim of the study

To summarize current knowledge on the causes of Diogenes syndrome, its characteristics and treatment.

Material and methods

The search of the Pubmed and Google Scholar database was carried out using keywords, in order to find the latest publications.

Summary

Diogenes syndrome is a complex disease that will affect an increasing number of elderly people as the population ages. There is a lack of extensive research to create clear diagnostic criteria, classification and treatment for Diogenes syndrome. The creation of a disease entity would enable earlier diagnosis and help patients.

Keywords

Diogenes syndrome, squalor, *bvFTD,hoarding.*

INTRODUCTION

Diogenes syndrome is a neuropsychiatric condition characterized by pathological hoarding, extreme neglect of oneself and surroundings, poverty, and lack of insight, which makes it impossible to seek for help[1,2]. The term refers to a Greek philosopher who rejected average functioning in society and chose destitution[3]. The condition was originally referred to as "senile squalor syndrome,"[4,5] the more recent term "severe domestic squalor" is also accepted[5,6].

The main symptoms are syllogomania - excessive hoarding, extreme neglect of hygiene, health and living environment, living in squalor, refusal to help and lack of shame and concern for one's own condition and living conditions, loneliness, seclusion[5,7,8].

Most patients with this disorder have a peculiar appearance - they are neglected, dirty and do not care about personal hygiene[2,9].

Currently, the American Psychiatric Association's classification of mental disorders (DSM-5) does not list Diogenes syndrome as a separate disorder, it only mentions hoarding disorder, which is apparently similar, but lacks the presence of squalor and extreme neglect as well as insight and anxiety and emotional attachment to objects[5,6,8,10].

GENERAL INFORMATION AND EPIDEMIOLOGY

To have a better understanding of what Diogenes syndrome consists of, it is necessary to develop the concept of "living in squalor." Squalor is defined as a person's place of living that is unsanitary and cluttered. The environment makes daily functioning so difficult, that other people from the same cultural background as the patient would admit that intensive cleaning is needed[11]. Although living in squalor is not exclusive to the elderly patients, it is particularly dangerous for them because of the increasing care needs and greater susceptibility to illnesses [12].

Diogenes syndrome, according to some researchers can occur originally, but is usually secondary to an underlying condition. Within younger groups investigated these are often alcohol dependence, psychosis, affective or obsessive-compulsive disorder (OCD), while in the elderly, symptoms are mostly associated with dementia and organic disorders.

However, according to Finney CM et al. (2017) there is no pure form of the disorder in the form of Diogenes syndrome, and that it is simply a cluster of symptoms that can occur in OCD, schizophrenia or dementia[2]. Their research shows that Diogenes syndrome is not confirmed in individuals without a history of mental illness or dementia[2,13], which would indicate that it is the result of other illnesses and not a separate disorder arising de novo.

However, Diogenes syndrome has specific features that are not typical symptoms of dementia and are not presented by every patient with dementia symptoms (strong orientation to environmental objects combined with decreased hygiene and pathological hoarding)[2].

The average age of a person with Diogenes syndrome is 79 [1,14]. They are mostly single, although rare cases have been described in married couples or siblings - the so-called "Diogenes à deux"[1,2,14]. The incidence is not well known, according to some researchers it is estimated to be about 1.6/10000 [1,15] or 0.05% in people over 60 years old[1,3]. Consequently, with increasing life expectancy, the public will be exposed to a higher occurrence of this syndrome.

A 46% 5-year mortality rate has been reported in patients with Diogenes syndrome. This is due to disorders secondary to neglect - infection, trauma, malnutrition, lack of hygiene[1,5,6,13].

Patients with Diogenes syndrome are ofen receiving treatment accidentally, during service interventions due to an accident (e.g., getting stuck in trash) and not because of their own need to seek help[5,16].

The incidence does not depend on wealth or gender[2,13].

POTENTIAL CAUSES OF DIOGENES SYNDROME

PERSONALITY DISORDERS

Individuals with Diogenes syndrome may present with personality disorders prior to its onset, such as paranoid personality as well as cognitive impairment that progresses with age[2].

Researchers Proctor C. et al. report that, according to Karl Jaspers (a well-known German psychiatrist), premorbid personality traits have a very significant impact on the pathogenesis of the syndrome. A lifelong subclinical personality disorder of the paranoid or schizoid type, can lead to gradual isolation and neglect. In addition,

traumatic situations such as death result in a drastic deterioration of the condition. There is an exacerbation of pathological defense mechanisms resulting from the personality disorder - a isolated lifestyle, refusal of help and abandonment of social norms.

For a person with the aforementioned personality disorder, a house full of junk and a state of neglect lead to pathological "benefits" - facilitate isolation through a detached living environment. Isolation in a person with the disorder in his mind protects him from feeling rejected and being hurt by other people[5].

TRAUMATIC EXPERIENCES

Researchers have noted that people with successful careers and high intelligence can suddenly start living in neglect due to traumatic life circumstances.

There is a hypothesis that Diogenes syndrome may be a reaction to acute stress in people who have already presented social withdrawal and distrust[5,8].

This is supported by the reported case of a 51-year-old man who stopped leaving his home and did not maintain contact with his family, which resulted in service intervention. He lived in a house where the floor consisted of multiple layers of garbage and decaying food. The man himself was found covered with a rug lying on top of a pile of wastes. He defecated into plastic bags and stored them in a corner of the room. Psychiatrists diagnosed him with severe depression. He was distrustful of people and claimed they could take advantage of him. After a thorough interview, it turned out that the 51-year-old had been traumatized by his wife's suicide six years earlier[5].

In the patient's case, one cannot say that he had a hoarding disorder, as he did not meet all the criteria for this disorder. He had difficulties getting rid of objects and the space in he lived in became cluttered and threatening, but he did not experience anxiety related to discarding them. Moreover, he functioned professionally for many years (with minimal social contact) without clinically significant anxiety. After ruling out dementia, the patient was found to have primary Diogenes syndrome. His history revealed long-term social withdrawal and a tendency to isolation, family problems. The man had above-average intelligence. He collected bizarre waste from early adulthood - ejaculate and feces[5].

The aforementioned case is both a confirmation of the hypothesis of the influence of traumatic experiences and personality disorders on the development of Diogenes syndrome and a confirmation of the presence of primary Diogenes syndrome.

Another example of the impact of traumatic experiences on the development of pathological hoarding and neglect is the story of a patient described by Gama Marques.

The 35-year-old man had been homeless for 7 years, extremely hygienically neglected (soiled with his own feces), depressed and apathetic. He had presented obsessive religious behavior, syllogomania and verbal perseverations for about a decade. There were traumatic events in his childhood, he was abused as an infant and shot at school age. He was diagnosed with a hoarding disorder and dementia caused by Huntington's disease and a psychotic syndrome secondary to it[17].

FRONTOTEMPORAL DEMENTIA

Diogenes syndrome has been found to occur frequently in patients with senility or dementia. Finney CM and Mendez MF[2] specifically noted the occurrence of Diogenes syndrome in the behavioral variant of frontotemporal dementia (bvFTD). The occurrence of Diogenes syndrome can affect up to 36% of patients with this variant of dementia[1].

They described five clinical cases that confirmed this dependence. The subjects of study ranged in age from 41 to 68 years, both men and women. Common features of all the individuals were: hoarding, decreased self-care, marked executive dysfunction, features of obsessive-compulsive disorder and a strong focus on environmental objects. Each patient had hypometabolism of the frontal areas (PET scan) and bilateral or right frontotemporal atrophy (MRI scan). They pathologically collected certain types of objects they found attractive: newspapers/clothing/CD. An interesting common feature was also a change in eating habits in all patients presented - food selectivity, non-standard meal choices (ice cream for breakfast) or gluttonousness[2]. It has been suggested that hoarding may have been part of the environmental dependence syndrome in frontal disease in these cases[1,5].

It involves perception mainly through visual and tactile stimuli. It can manifest itself through utilitarian behavior, touching, reading aloud, echolalia, etc., but also collecting, hoarding, borrowing and even stealing[2,18].

The frontal lobe is responsible for human behavior. Degeneration of neurons in this area leading to dementia can lead to disinhibition, stereotypy and compulsions, loss of empathy, dietary changes, perseverative behavior, apathy, among others. Many of these features are shared with the basic elements of Diogenes syndrome (hygiene

neglect, lack of criticality, compulsive behavior). Lack of insight, which leads to clutter and disorganization, also causes patients to not feel the need to get rid of unnecessary objects[2].

Frontal lobe neuroimaging abnormalities suggestive of frontal lobe dysfunction may be associated with loss of self-awareness and insight regarding the level of neglect of one's residence, impulsivity and compulsive collecting of objects. Special attention should be paid here to the influence of right frontoparietal dysfunction, hypoactivity of the frontal lobes, the insula and abnormal activity in the anterior cingulate gyrus in the development of environmental dependence syndrome in frontal dementia[2].

The authors suggest that dysfunction of the frontal-striatal system, especially on the right side, triggers a drive to collect items from the surrounding environment[2], which may have an evolutionary basis - triggering an impulse to gather vital resources to counteract threatening scarcity[2,19].

Diogenes syndrome can be distinguished from hoarding in a way that those affected do not become attached to accumulated objects; they allow themselves to be disposed of without anxiety. The hoarding does not result from emotional preoccupation, but rather from a pathological focus on objects deemed interesting by the patient with frontal disease[2].

The case of researchers Sacchi Li et al. is similar to those previously mentioned. It is the case of a 77-year-old man in whom behavioral changes had been observed for several years. It came to police intervention when he was found hygienically neglected in front of his home. The man was confused about time and space. Previously, he lived alone in a pathologically cluttered apartment, full of objects accumulated over a long period of time. he consumed alcohol daily. He presented xobic delusions and confabulations. After MRI and PET scans, a diagnosis of bvFTD was made[1].

Acquired hoarding has been described as a consequence of dementia[1,20], as well as vascular lesions in the medial prefrontal cortex or bilateral orbitofrontal cortex[1,21]. Gathering appears not to be specific to any dementia subtype, but is much more common in bvFTD and the FTD subtype semantic variant of primary progressive aphasia (svPPa)[1,22].

OBSESSIVE-COMPULSIVE DISORDER (OCD)

A change in frontal-striatal connectivity is characteristic to OCD[2,23], patients with bvFTD with loss of gray matter in the striatum show OCD-like behaviors (compulsions) including hoarding.

However, the reasons for hoarding should be distinguished according to the disorder. In OCD, it involves anxiety, fear of losing an object and an inner drive to collect sometimes in spite of oneself, as well as anxiety about getting rid of things or feeling guilty[1].

Structural differences in brain morphometry have been demonstrated in people with OCD[1,24] compared to controls, as well as structural differences in people with hoarding disorder compared to people with OCD and controls[1,25]. People with hoarding disorder had a greater activation of the dorsolateral prefrontal cortex during task performance compared to people with OCD[1].

The results of MRI analysis of people with FTD showed neuroanatomical separability between hoarding and OCD, but highlighted the important role of the temporal lobes (especially the left) in both disorders[1,26]. Reduction in the gray matter of the aforementioned temporal lobe areas correlated with the severity of hoarding in people with FTD, but also with the severity of obsessive-compulsive behavior[1,20].

Degeneration of left temporal lobe structures leads to deterioration of semantic organization and storage, resulting in the recognition of each object as unique and impossible to discard[1].

BRAIN TISSUE TUMORS

Another example of the substrate for the development of Diogenes syndrome is a case described by Gama Marques. A 67-year-old psychiatric ward patient began to collect objects and started to live in squalor 6 months earlier. She was neglected, confused, accompanied by dizziness and ataxia, and would not stop talking (schizophasia). MRI revealed ventriculomegaly and a tumor of the sternocostal angle on the left side. After surgery and histopathological examination, it turned out to be a meningioma. The woman required intensive physiotherapy, but complete remission of neurological and psychiatric symptoms was achieved[27].

The withdrawal of Diogenes syndrome symptoms after meningioma surgery may be associated with a decrease in tissue pressure and therefore a decrease in pressure on

the frontal lobes, whose dysfunction may have influenced the lack of insight and the formation of an impulse to collect environmental objects[2,27].

Diogenes syndrome should be alerted not only for dementia, but also for impaired mobility, frequent falls and central nervous system tumors[27].

TREATMENT

Living in squalor is a complex problem that poses clinical, ethical and social challenges[28].

Because people with Diogenes syndrome lack insight into their condition, therapeutic management is difficult and hard to enforce. It includes both pharmacological and non-pharmacological approaches. Behavioral therapy appears to be effective in some cases[1,29].

As for pharmacotherapy, there are no specific guidelines or specified drugs to be used, so the choice of therapy depends on the symptoms accompanying the disease to which Diogenes syndrome is secondary.

A number of medications have been tried in studies including SSRIs, antiepileptics, first and second generation antipsychotics - results have been inconclusive[1].

Some articles have found benefits of SSRIs in reducing the extent of hoarding[1,30]. The combination of quetiapine and valproic acid in patients with bvFTD and Diogenes syndrome has benefited[1,31]. Trazodone has been shown to be beneficial in alleviating the behavioral symptoms of bvFTD[1].

Third-party provision of a structured environment for sufferers and the use of behavioral techniques to distract the patient from hoarding may be important in treatment[2].

Options for non-pharmacological interventions include cognitive-behavioral therapy, "medical case management", cognitive remediation, compassion-focused therapy, and public sector response[12]. "Medical case management" may improve quality of life, but is not sufficient to eliminate hoarding disorder [12,32].

Cognitive-behavioral therapy (CBT) has only been tried in individuals who live in poverty as a result of hoarding. It can reduce depression and the severity of hoarding. CBT is effective in younger people with hoarding syndrome but does not work in older people[12,33].

Cognitive rehabilitation therapy (CREST) is more effective than CBT. It targets memory and executive functions. It is exposure therapy, developing coping strategies

and relapse prevention[12,34]. It has very good efficacy immediately after intervention with an older person, but shows little long-term effect[12].

Compassion-focused therapy (CFT) regulates emotions through mindfulness and activation of the parasympathetic nervous system to help calm emotions during de-cluttering[12,35]. In small studies, the results of this therapy have been clinically significant and achieved reductions in the severity of syllogomania [12,35].

Social care responses consist primarily of cleaning the residence. Regular cleaning helps the patient not to lose the apartment in case it is rented. It is worthwhile for the patient to be involved in the cleaning process[12].

The elderly living in poverty compared to other hospitalized patients generate higher costs for the state. They need a large number of social services, stay in the hospital for long periods of time and are often placed in nursing homes. Cleaning their apartments is expensive and involving.

Also, the family of a patient with hoarding syndrome requires psycho-educational support (how to understand hoarding and how to motivate an elderly person to clean). Often, family members are in an ethical conflict trying to initiate changes for people without insight, experience rejection by the sufferer and a sense of harm being done to them[12].

Many clinicians feel a moral dilemma having a problem with the forced management of someone's life and the level of cleanliness of their residence. On the other hand, Lee SM et al[28] stress that the situation of people with cognitive dysfunction and lack of insight cannot be ignored.

It is important to respect the autonomy of the individual to assess their cognitive abilities, especially in the context of frontal lobe dysfunction. Often those living in poverty who refuse help may need it the most[36].

On the other hand, when deciding to intervene against the patient's will, it is important to note that they negatively affect those around them and their hoarding can be dangerous, especially for children or animals living with them (without the capacity for autonomous decision-making). Viewed from this perspective, intervention seems ethically justified[12].

SUMMARY

Diogenes syndrome develops on the basis of personality disorders, psychiatric, neurological or organic diseases. It is important to understand that it can result from

overlapping dysfunctions, e.g., frontal lobe dysfunction leading to hygiene neglect, lack of insight and disinhibited reactions to environmental elements, and dysfunction of the right frontal-striatal lobe, which prevents inhibition of the instinct to collect objects of value to the person.

Vigilance and attention should be paid to the possibility and predisposition to Diogenes syndrome in elderly people diagnosed with the behavioral variant of frontotemporal dementia.

Elderly people living in poverty have a higher prevalence of frontal executive dysfunction, a higher prevalence and risk of mortality and consume more of both social and medical resources.

Treatment of people with Diogenes syndrome is difficult because there is a lack of extensive research and official guidelines. It usually boils down to psychological therapies and pharmacological or surgical treatment of the underlying disease.

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