Self-Injury Behaviors and Aggression Follow Charles Bonnet Syndromein a Hemodialysis, Diabetic Patient

Reza Bidaki[1,2], Fahime Keshavarzian[3],Fateme Alavi[2*], Pouria Yazdian[4]

1. Diabetes Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.
2. Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi university of Medical Sciences, Yazd, Iran.
3. Shahid Rahnamoon Hemodyalisis Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.
4. Yazd Student Research Committee, Shahid Sadoughi University of Medical Science, Yazd, Iran.

[*]**Correspondence:**
Fateme Alavi, Research Center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran.
Email: Alavi_Fateme84@yahoo.com
Tel: (98) 353 263 2006

Received: 11 May 2016

Accepted: 18 July 2016

Published in August 2016

Abstract

Objective: Isolated visual hallucinations is considered as the Charles Bonnet syndrome. Ophtalmic or brain organic disease is a necessary or exclusionary criterion for diagnosis. In previous reports, it reported only solitary hallucination. In this report, we found multiple hallucinations.

Case Presentation: In this article we report a 64 year-old blind man with renal failure under hemodialysis who suffered from the Charles bonnet syndrome. His left eye was blind about 6 months ago, He fell some flies attack him and lying on his face. He believed that insects crawling on his face (Tactile hallucination). It was ruled out delirium, psychotic and mood disorders.

Conclusion: Not only visual hallucination, but also the tactile and gustatory hallucination can find about Charles Bonnet syndrome.

Keywords: Charles Bonnet Syndrome, Diabetes, Hallucination

Introduction

Isolated visual hallucinations without other psychopathology considered as the Charles Bonnet syndrome (CBS), or whether ocular disease or brain organic disease is a necessary or exclusionary criterion for diagnosis (1).

CBS hallucinations are two broad types:

- Simple repeated patterns
- Complex hallucinations of people, objects and landscapes (2).

Both kinds of hallucination may be in black and white and at other times in color, or they may move or fix. In different patients one type of hallucination may be more than another or both types of hallucination at the same time or one after another (3).

Visual hallucinations in blind people with CBS last few minutes to hours (4). People with this syndrome can see both familiar and unfamiliar things (5). Some can even see things like an angel, jinni, fairy, or transparent

[Downloaded from ijdo.ssu.ac.ir on 2026-09-14]

objects. In some cases, they even see objects smaller than their actual size. If the sensory cells of the retina are damaged, nerve impulses cannot be transmitted to the visual cells of the brain. This is where these cells begin to illustrate the visual information stored in the brain, thus creating visual hallucinations (6).

A transient episode of tactile hallucination was happening in dialysis disequilibrium syndrome (DDS) concomitant obvious degree of metabolic disturbance (7).

In this article we report a 64 year-old man who suffered from the Charles bonnet syndrome, he suffered from renal failure and dialysis because of his diabetes and also blindness, tactile, visual and gustatory hallucinations.

Case Report

The patient was a 64 year-old married man. He was under hemodialysis because of chronic renal failure. He had uncontrolled diabetes mellitus since 24 years ago and hypertension from12 years ago. He didn't receive erythropoietin.

His left eye was blind about 6 months ago, He fell some flies attack him and lying on his face. He believed that insects crawling on his face (Tactile hallucination). Eventually, he started self-injury behavior, slap on his face and aggression toward himself and others for removal of annoying insects.

Also, he felt that all diets are salty (Gustatory hallucination). Two weeks after prescription of Tablet. Nortryptiline 25 mg at night, the gustatory hallucination was resolved.

It isn't fluctuation of consciousness. Hallucinations are permanent, but in evenings they are more severe and serious.

He hasn't suitable drug compliance. He used tablet Clonazepam 1 mg at night.

RoutineLab tests:

Urea: High
Creatinine: 6.2
Hb: Low
WBC: Normal
U/A: Normal

Discussion

The visual hallucinations are seen in some conditions. Always they indicate a psychopathology in psychiatry. They may be pleasant or unpleasant. Our patient indicated they are unpleasant distressing and agonizing. (8).

In 2004, the scientists of Harvard University closed the eyes of a group of people with no visual impairment in an experiment. After a few hours, most of them began to see imaginary patterns, landscapes, and even human faces (9).

Elderly blind people are often afraid of expressing their visual hallucinations because they think their families and physicians would assess their mental status as unstable or would label them as patients with mental illness (6). Because of stigma, he didn't agree with psychopharmacotherapy.

Visual and gustatory hallucination wasn't transient or concomitant with the dialysis disequilibrium syndrome. They were formed, persistence and considerable clinically. The consciousness was intact and hadn't fluctuation, therefore, the delirium was ruled out.

The visual hallucination is related to erythropoietin and the CBS (10). Of course, our patient didn't get this or an anticholinergic drug.

It is highly important to consider CBS in the blind people who are referred to physicians while complaining about visual hallucinations. Physicians often diagnose them with delirium, dementia, psychosis or drug in the first place. However, it is not just visual deprivation in blind people that can lead to the activation of brain cells without the stimulus. Deaf people have the same experience. An elderly deaf woman, for instance, claimed that she could hear the voice of her mother who had passed away a long time ago (11).

CBS can be distressing, but many people find that the hallucinations can get less frequent with time. It was initially thought that hallucinations resolved within 12 to 18 months, but a recent study found that most

[Downloaded from ijdo.ssu.ac.ir on 2026-09-14]

people still have occasional hallucinations five years after they first started (12).

This syndrome has been explained most frequently in elderly patients (13). Our case was an old hemodialysis patient. Therefore,this can suggest the etiology of this organic syndrome.

Conclusion

Not only visual hallucination, but also the tactile and gustatory hallucination can find about Charles Bonnet syndrome. This syndrome can be a stigma for patient and refuse of psychopharmacotherapy. It necessary that physicians involve with hemodialysis and ocular patient know this state and manage it, truly.

Acknowledgement

We thank personnel of hemodialysis unit of Dr. Shahid Rahnamoon hospital.

References

1. Gold K, Rabins PV. Isolated visual hallucinations and the Charles Bonnet syndrome: a review of the literature and presentation of six cases. Comprehensive psychiatry. 1989;30(1):90-8.
2. Forgnone I, Siguero Angui A. Visual hallucinations without cognitive impairment. Charles Bonnet Syndrome. A little known syndrome. Semergen / Sociedad Espanola de Medicina Rural y Generalista. 2015.
3. Nair AG, Nair AG, Shah BR, Gandhi RA. Seeing the unseen: Charles Bonnet syndrome revisited. Psychogeriatrics: the official journal of the Japanese Psychogeriatric Society. 2014.
4. Ruiz-Medrano J, Santos-Bueso E, Garcia-Sanchez J. Charles Bonnet and his theories. Archivos de la Sociedad Espanola de Oftalmologia. 2013;88(10):68-9.
5. Santos-Bueso E, Porta-Etessam J, Saenz-Frances F, Serrador-Garcia M, Garcia-Sanchez J. Charles Bonnet syndrome and the association with dementia. Archivos de la Sociedad Espanola de Oftalmologia. 2014;89(1):43-4.
6. Vale TC, Fernandes LC, Caramelli P. Charles Bonnet syndrome: characteristics of its visual hallucinations and differential diagnosis. Arquivos de neuro-psiquiatria. 2014;72(5):333-6.
7. Soomro A, Al Bahri R, Alhassan N, Hejaili FF, Al Sayyari AA. Posterior reversible encephalopathy syndrome with tactile hallucinations secondary to dialysis disequilibrium syndrome. Saudi journal of kidney diseases and transplantation: an official publication of the Saudi Center for Organ Transplantation, Saudi Arabia. 2014;25(3):625-9.
8. Waters F, Collerton D, Ffytche DH, Jardri R, Pins D, Dudley R, et al. Visual hallucinations in the psychosis spectrum and comparative information from neurodegenerative disorders and eye disease. Schizophrenia bulletin. 2014;40(4):233-45.
9. Tan CS, Au Eong KG. Charles Bonnet syndrome: hallucinations may not be what they seem. Clinical & experimental optometry. 2004;87(6):405-6.
10. Steinberg H, Saravay SM, Wadhwa N, Pollack S, Maesaka J. Erythropoietin and visual hallucinations in patients on dialysis. Psychosomatics. 1996;37(6):556-63.
11. Aziz VM, Nessim M, Warner NJ. Charles-Bonnet syndrome and musical hallucination. International psychogeriatrics / IPA. 2004;16(4):489-91.
12. Santos-Bueso E, Serrador-Garcia M, Porta-Etessam J, Rodriguez-Gomez O, Martinez-de-la-Casa JM, Garcia-Feijoo J, et al. Charles Bonnet syndrome. A 45-case series. Revista de neurologia. 2015;60(8):337-40.
13. Hosty G. Charles Bonnet syndrome: a description of two cases. Acta psychiatrica Scandinavica. 1990;82(4):316-7.

[Downloaded from ijdo.ssu.ac.ir on 2026-09-14]