

A Review of Cases in the Literature on Auditory Hallucinations: It would be Possible for Mozart to Hallucinate his Music

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ABSTRACT

Introduction: A review of cases in the literature on auditory hallucinations, and associated clinical characteristics, to late onset psychosis and hearing loss is performed. It has been speculated that Mozart was suffering from musical auditory hallucinations and that he used these hallucinating phenomena to write his works. Musical hallucinations that appear in elderly women may have different causes and there are few cases described in the literature have been described in different clinical situations: loss of hearing ability; brain lesions, vascular processes and encephalitis; consumption of psychoactive substances and psychiatric disorders.

Methods: Cases published in the literature on auditory hallucinations from 2011 to 2019 are reviewed.

Results: Different cases are described, from episodes of musical auditory hallucinations to: late age, after a surgical process, after using a medication, due to hearing problems, by musicians, by evocations of remote memory and during dreams, in addition to perception of music in patients with previous mental health disorders.

Conclusion: Musical hallucinations are a rare and complex phenomenon. Clinically they may be more frequent in women and in old age. Musical hallucinations are a borderline pathology between neurology, otolaryngology and little-known psychiatry, which is often mistakenly linked to a mental illness.

Keywords: Hallucination; Neurology; Otolaryngology; Manic-depressive disorder; Paranoid

INTRODUCTION

Mozart is credited with psychiatric disorders such as attention deficit hyperactivity disorder, manic-depressive disorder, paranoid ideas, it has even been mentioned that he suffered from musical hallucinations and therefore did not possess creative musical ingenuity, since he used hallucinatory phenomena to write his works, etc., none of the diagnoses have been based on reliable sources; Mozart apparently did not present any psychiatric disorder, it seems that the legends around Mozart's life were founded by assumptions created through bad translations and interpretations of his letters, as well as from unreliable sources and medical reports made during his life [1].

Musical hallucinations that appear in elderly women may have different causes and there are few cases described in the literature [2].

Are rare and are at the crossroads of otological, neurological and psychiatric practice. There is not enough empirical information

available to know its diagnostic function [3]. Is a type of frequent auditory hallucination in the non-psychiatric population, but little reported in the neurological literature [4]? Musical perception is an experience that not only involves cognitive components, but also emotional responses according to the experience. Musical hallucinations have been described in different clinical situations: loss of hearing ability; brain lesions, vascular processes and encephalitis; consumption of psychoactive substances and psychiatric disorders [5]. Use of medications can cause hearing loss [5]. Through hallucinations, music known to people in their immediate surroundings but cannot consciously remember [6]. Listening to music can create illusions and perceptual alterations, some of the musical hallucinations are: listening to perseverations of tones, loud music that interferes with sleep and creates a dysfunction in your daily life [7].

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CASE PRESENTATION

Cases published in the literature on auditory hallucinations from 2011 to 2019 are reviewed.

Case 1

We present a 73-year-old woman with previous normal behavior and no previous psychiatric history who sought medical help accompanied by her husband after experiencing auditory hallucinations. These had been appearing for three months as musical sounds and speech (megaphone), with a high emotional and behavioral impact. The neuroimaging showed chronic vascular lesions and the neuropsychological evaluation was pathological, with impaired visioconstructive capacity, executive functions, planning and new learning. Despite having no primary psychiatric history, acute late onset psychosis in this patient was induced by multiple vascular lesions. Hallucinatory symptoms of a musical type are particular in this patient, being an alert sign that prompted the search for probable causes. In this case, the combination of all clinical exams, clinical tests, neuroimaging, neuropsychological tests and the knowledge obtained from their clinical history lead us to the diagnosis of vascular cognitive impairment [2].

Case 2

Two new cases of musical hallucinations are presented. The first in the context of a late onset psychosis. In the second, hallucinations appear acutely in a patient with an old bilateral deafness.

Depending on the etiology, the hallucinatory experience may vary in the form of the beginning, the familiarity of the heard, the type and musical genre, and the origin of the perceived, the location, and the presentation as the only symptom or accompanied by another alteration of the sensory perception or other psychiatric symptoms, experience and degree of understanding.

Musical hallucinations are a rare and complex phenomenon. Clinically they may be more frequent in women and in old age. The etiology seems to be related to deafness and other diseases of the ear, and to brain lesions that predominantly affect the non-dominant hemisphere. It does not seem likely that factors such as psychosis or personality traits influence the development of most musical hallucinations. In this work, two new cases are presented that confirm the complexity and richness of musical hallucinations [3].

Case 3

Six cases (five women and one man) of musical hallucinations diagnosed in a general neurology clinic in a period of five years are presented. In five of them there was hearing loss to a greater or lesser degree and one was triggered by pentoxifylline. Mainly, the musical content of hallucinations of musical experiences lived in childhood and youth. In some cases, a drug treatment response was poor; however, once the benignity of the condition and its disconnection with the psychotic pathology was

explained to the patients, the degree of acceptance of the symptom was good.

Musical hallucinations are a borderline pathology between neurology, otolaryngology and little-known psychiatry, which is often mistakenly linked to a mental illness. It is essential to explain to patients and relatives the unidentified psychiatric nature of this symptom, as well as to know the potential of some commonly used medications to generate it [4].

Case 4

One night, a 60-year-old woman, when they had to sleep, suddenly began to listen to music, as if a radio rang behind her head. The musical pieces were popular songs that her husband recognized when he sang or hummed them, but she could not identify them. This is the first known and scientifically documented case of a person who perceives, through hallucinations, music known to people in their immediate surroundings but cannot consciously remember. This was determined by Dr. Danilo Vitorovic and José Biller, of the Loyola University Medical Center in Chicago, United States.

The case raises interesting questions about memory, in particular the phenomenon of forgetting things without losing those memories completely, and then accessing them without recognizing them as memories, as included in the study authors. Musical hallucinations are a surprising form of acoustic hallucination, in which the person listens to songs, whether sung or only instrumental, that do not sound in the real world. Almost all patients who experience hallucinations of this type are determined to suffer hallucinations, and find that music perceived in such a singular way is intrusive and sometimes openly unpleasant. Unfortunately, there is still no cure for this disorder.

Several ailments are possible causes, or at least factors that predispose to suffer such hallucinations, and among them include a serious danger in hearing ability, brain damage, epilepsy, intoxication and psychiatric conditions such as deep depression, schizophrenia and obsessive compulsive disorder. Severe hearing damage is the most common predisposition factor, but it is not enough in itself to cause hallucinations.

The patient Vitorovic and Biller have studied is a woman with hearing problems who suffered musical hallucinations when they had to sleep. Within four months, hallucinations of that class already accompanied her all day, and in a very tedious way. For example, you will hear a song in your mind and again for 3 weeks, and then continue listening to another song that is also repeated many times.

The volume of music in his hallucinations never changed, and fortunately the woman could hear and follow real-world conversations while the music of the unreal sounded in her head. The patient was treated with carbamazepine; a medicine used to prevent epileptic seizures, and experienced some improvement in her symptoms.

The most unique case, as we have advanced, is that the patient was able to hum parts of the melodies of some songs and remember fragments of his lyrics, despite not recognizing them.

In other words, I was convinced that I had never heard these songs before and therefore could not identify them. This raises the possibility that perhaps the songs were buried in his memory, in a way that prevented him from consciously accessing those memories but allowed them to emerge in hallucinations.

It is necessary to investigate much more the mechanisms of oblivion, as recommended by Vitorovic and Biller, who raise the intriguing possibility that some memories do not disappear but only become inaccessible to the person in a normal mental state and may arise later as part of hallucinations or other altered states of consciousness [5,6].

Case 5

Musical hallucinations and psychiatry. Warner, in a study of 30 geriatric patients suffering from musical hallucinations, discovered that hymns and carols are the most frequent. Williams, describes the first case of musical hallucinations in a patient with posterior resection of the left temporal lobe due to a difficult control epilepsy, these hallucinations occurred 6 months after surgery, the patient says he listens to songs that last days or weeks in his head and are constant, since the surgical procedure is in Engel II (almost crisis free) and improves cognitive performance⁵⁰. Warren, reports the case of a musician who after an EVC presents musical hallucinations, the interesting thing is that the musician was able to describe and write his hallucinations in musical notation, which consisted of small rhythmic and repetitive melodic motifs that seemed to be randomly combined but lacked a more complex structure and an established tone. Some transitory hallucinations secondary to the intake of medications, such as dipyridamole, which caused hallucinations in an 83-year-old patient while under treatment, when he was suspended, the hallucinations ceased.

DISCUSSION

Aphasia, dementia and amnesia retain their musical abilities. It has also been described that some subjects may develop an absolute ear after having a traumatic brain injury; Schizophrenic patients seem to perceive music in a more attractive way and complex sounds seem more intense, in one study they report that 16% have musical hallucinations.

Patients with obsessive compulsive disorder (OCD) are more sensitive and Hermesh, in their study, reported that one third of all OCD patients experience musical hallucinations.

CONCLUSION

Musical hallucinations are a rare and complex phenomenon. Clinically they may be more frequent in women and in old age. The importance of proceeding with an additional complementary clinical examination and neuropsychological evaluation in elderly patients with verbal-musical hallucinations is highlighted.

Depending on the etiology, the hallucinatory experience may vary in the form of the beginning, the familiarity of the heard,

the type and musical genre, the origin of the perceived, the location, the presentation as the only symptom or accompanied by another alteration of the sensory perception or other psychiatric symptoms, experience and degree of understanding.

Musical hallucinations are a borderline pathology between neurology, otolaryngology and little-known psychiatry, which is often mistakenly linked to a mental illness. You can also present Secondary to the use of a medication. Listening to music can create illusions and perceptual alterations, some of the musical hallucinations are: listening to perseverations of tones, loud music that interferes with sleep and creates a dysfunction in your daily life.

The patient that Vitorovic and Biller had hearing problems that suffered musical hallucinations when she had to sleep. This raises the possibility that perhaps the songs were buried in his memory, in a way that prevented him from consciously accessing those memories but allowed them to emerge in hallucinations. It is necessary to investigate much more the mechanisms of oblivion, as recommended by Vitorovic and Biller, who raise the intriguing possibility that some memories do not disappear but only become inaccessible to the person in a normal mental state and may arise later as part of hallucinations or other altered states of consciousness.

The first case of musical hallucinations in a patient with posterior resection of the left temporal lobe due to difficult control epilepsy, these hallucinations occurred 6 months after surgery. In addition to a case with intake of dipyridamol. It is common in patients with schizophrenia and obsessive compulsive disorder, they experience musical hallucinations. In patients with mental health disorders, music is perceived differently.

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