Differential Diagnosis of Hallucinatory Experiences in the Elderly

Afonso, H.¹; Froes, V.¹; Leandro, F.; Varela, I.¹; Esteves, S. ¹; Carneiro, M. ¹; Lima, G; Martins, J.²

1 – Department of Psychiatry and Mental Health, Centro Hospitalar do Barreiro Montijo, Barreiro, Portugal;

2 – Department of Psychiatry and Mental Health, Distrital Hospital of Santarém, Santarém, Portugal

Background/Aims

- **Hallucinations** are **perceptions without an object** with the **strength of a real perception**;
- Are experienced as **normal sensorial experiences** and may happen in **psychiatric and medical patients and healthy individuals**;
- In **non-clinical populations**, **isolated hallucinations** are **highly frequent** reaching **rates of even 71%**;
- Some authors question the **specificity of hallucinatory events** and **their meaningfulness** as **equivalents of psychiatric illness** **classifying** them in a **continuum or range of severity**
 - **Normality or pathology** determined by **frequency, content, subjective distress, degree of insight** and **evidence of physical or mental disorder**;
- In **elderly**, **hallucinatory experiences** may occur in **multiple disorders**: demential syndromes, depressive disorders, grief, sensorial acuity decrease, delirium, substance effects, neurological lesions, Parkinson Disease, late onset schizophrenia, bipolar disorder and post-traumatic stress disorder.

Objectives

With this work the authors want to **review the differential diagnosis of hallucinatory symptoms in the elderly.**

Materials and methods

The authors **reviewed, non systematically, the literature**, through search in **textbooks and papers** related to this topic in the databases of **Pubmed and Sciencedirect.**

Results

Important the phenomenological differentiation of these perceptive experiences with **other false perceptions – illusions and pseudoallucinations:**

- **Illusion – transformation of a perception by mixture of a fantasiosus perceptive experience with a normal perception**;
- **Pseudo-hallucinations – distinguished either by insight revealed by the patient (hallucination - without insight; pseudo-hallucination - with insight) or location where the phenomena takes place (hallucination outside the internal space; pseudo-hallucination inside the internal space).**

Next, are summarized the most common hallucinatory experiences in elderly categorized by type of hallucination with differential diagnosis:

Visual Hallucinations

- **Commonly** secondary to **organic causes**;
- **Appear in oftalmologic, neurologic, metabolic, iatrogenic or psychiatric disorders**;
- **Elementary to complex**
 - May happen in **intoxication or abstinence** of substances – **investigate temporal relationship**;
- **Linked to multiple diagnosis:** retinal pathology; cortical blindness; migraine; occipital lobe epilepsy and tumors; Parkinson Disease (simple or complex – people, animals); Lewy Body Dementia (important for diagnosis – fluctuating); other dementia causes – with “sundowning effect” (more on evening and night); cortical blindness; delirium (>25% patients); post-concussional; hepatic disorders; Charles Bonnet Syndrome (visual acuity); delirium tremens; autoscopic phenomena (depressive syndromes).

Auditory Hallucinations

- **Healthy individuals or medical or psychiatric patients**;
- **Elementary to complex**
- **Linked to:** dementia; delirium; substance induced psychosis; sensorial deficit caused hallucinations; psychiatric disorders
- **Psychiatric disorders:** late onset or very late onset schizophrenia (more in women); persistent delusional disorder (related to delusions and not significative in the clinical picture); depressive or bipolar disorder with psychotic componente; less data on some disorders (OCD; anxious disorders;dissociative disorders; personality disorders)
- **Neurological disorders:** dementia (Alzheimer, Parkinson; Lewy body); migraine; neurosyphilis; temporal lobe epilepsy; encephalopat; focal brain lesions; narcolepsy; Huntington disorder; eritematous systemic lupus; Hashimoto encephalopat.
- **Other causes:** auditive sensorial deficits; legal and ilegal substance effect; delirium; auditive interference on ear aids; ear pathology; major acute stressors; sleep related hallucinations

Cenesthetic hallucinations

- Related to **abnormal bodily sensations**;
- Described as related to mood disorders, delusional disorders, dementia, schizophrenia, neurological causes as stroke;
- Also related to **pharmacological treatments – dopaminergic agonists.**

Olfactory hallucinations

- Described **in the context of:**
 - delusional disorder; dementia; epilepsy; tumors of temporal lobe.

Conclusions

- **Differential diagnosis of hallucinatory symptoms in the elderly present a serious challenge**;
- **May be related to multiple medical and psychiatric causes and occur with multiple comorbidity in the elderly**;
- **Difficulty due to inespecificity of the hallucinatory symptoms**;
- **Important to achieve an accurate diagnosis in order to elicit the appropriate treatment.**

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