



Visual hallucinations in dementia with Lewy bodies and primary psychosis spectrum

E.Monego¹, F. Fragiaco¹, G. Pigato¹, S. Pompanin¹, G. Camporese¹, G. Zorzi¹, B. Roiter², A. Cagnin¹

^{1,2}Department of Neurosciences and ³IRCCS San Camillo Hospital, Venice, Italy.

Objectives

Visual hallucinations (VH) most commonly occur in dementia with Lewy body (DLB). Very little is known about the frequency and phenomenology of VH in psychiatric disorders manifesting with psychosis, where auditory hallucinations are more frequent. The phenomenology of VH is likely to offer crucial information about the brain regions within the visual system generating them. The aim of the study is to assess differences of VH phenomenology in DLB and psychiatric disorders with psychosis.

Methods

One hundred forty-nine patients were studied: **63** patients with **DLB** diagnosed according to consensus criteria and **86** patients with **psychosis** due to different psychiatric disorders: bipolar disorder and affective disorder according to the DSM-5. The frequency and phenomenology of VH were investigated using an ad-hoc questionnaire created by merging dedicated instruments for VH in DLB and psychiatric disorders.

Results

48% (30/63) of DLB and 31% (25/81) of psychotic patients experienced VH not induced by drugs or abuse substances. The VH phenomenology was different in DLB and primary psychosis for the following aspects: **duration** (DLB: seconds/minutes, Psychosis: heterogeneous duration; $p=0.03$), **contents** (DLB: 70% humans/animals, Psychosis: different types, $p=0.001$), abnormal **colors** (DLB: 50%, Psychosis: 16%, $p=0.03$), occurrence of **auditory hallucinations** (DLB 12%, Psychosis, 68%, $p<0.001$), **related emotions** (DLB: 36%, Psychosis: 87%, mainly negative, $p<0.001$), **external source** (DLB 0%, Psychosis: 30%, $p=0.02$).

Discussion and conclusions

- **VH in psychosis** occur more often than reported in literature, mostly in association with auditory hallucinations, with a heterogeneous phenomenology and presence of more affection contents than DLB.
- **On the opposite, in DLB** VH are usually very short, mostly characterized by human faces or animals, often with poor emotional color.

These differences suggest a more restricted networks alterations responsible of VH in DLB respect to primary psychotic disorder. Comparative functional neuroimaging studies could improve knowledge on this interesting topic

