Delusional Disorders in the Elderly

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Delusions and paranoid ideation are common in the elderly, and they pose a diagnostic and clinical challenge. This article reviews recent findings in the classification of these symptoms, biologic underpinnings, treatment, and prognosis. Based on a review of the relevant literature, delusional disorder in the elderly should be regarded as part of a continuum of late-life psychoses. Although late-onset psychosis may have a neurodevelopmental origin, there is an increasing body of evidence that delusional disorders could be a heralding sign for a neurodegenerative process leading to cognitive decline and dementia. Atypical antipsychotic agents continue to be the first-line treatment for late-onset psychosis despite the lack of robust randomized clinical trials in this population. Increased risk of mortality and cerebrovascular accidents associated with these agents stresses the importance of the need for appropriate patient selection and carefully weighing the benefits and risks when initiating these agents.

Introduction

Controversy continues to surround the differential diagnosis of late-onset hallucinations and late-onset delusions. Research during the last 20 years has examined whether late-onset schizophrenia can be reliability differentiated from late-onset paranoid disorder or paraphrenia. Late-onset schizophrenia has proved difficult to define and categorize as a subtype of schizophrenia. The use of different definitions for late-onset schizophrenia has made it difficult to reach a consensus regarding the most optimal diagnostic classification. Kraepelin coined the term “paraphrenia” to describe a group of chronic paranoid psychoses distinguished by preservation of personality and lack of long-term deterioration. The term “late-paraphrenia,” as often used by British psychiatrists, describes the late-onset of schizophrenia as well as delusional disorder beginning after the age of 60 years. The term “late-life schizophrenia,” which at times has been used synonymously with late-paraphrenia, has also been used to describe schizophrenic symptoms beginning after the age of 40. Late-life schizophrenia is often used to describe primary late-life psychosis.

A study by Riecher-Rossler et al. [1•] examined the validity of the diagnostic distinction between schizophrenia and delusional disorder of late onset. After a careful review of 1109 patients with a first admission and a clinical diagnosis of a schizophrenic or paranoid psychosis, the authors concluded that a high overlap existed between schizophrenia and late-onset delusional disorder; a reliable differentiation between them was not possible whether using a descriptive, predictive, or construct-based approach. The authors recommended that paranoid psychoses be regarded as a “spectrum diagnosis of schizophrenia” and that research include the broad range of psychotic symptoms and diagnoses.

Epidemiology

The prevalence of psychotic disorders in the elderly ranges up to 5% in community-dwelling elderly and up to 10% in nursing home patients. In the very old, the prevalence rate is higher. Late-onset psychosis still accounts for about 10% of psychiatric inpatient admissions of older adults in the United States.

In a study by Ostling and Skoog [2] that assessed the presence of psychotic symptoms in a sample of 347 nondemented people living in the community or in institutions, the prevalence of any psychotic symptom was 10.1%. Delusions were present in 5.5% of the sample and paranoid ideation in 6.9% of the sample. The presence of both delusions and paranoid ideation were associated with an increased risk of dementia in the 85 to 88 year-old group at 3 year follow-up. Paranoid ideation and hallucinations were associated with increased mortality in this study.

Differential Diagnosis of Late-onset Psychosis

The majority of late-onset psychosis in the elderly is not due to primary psychotic illness. Webster and Grossberg [3] retrospectively evaluated the etiology of psychotic symptoms that manifested after age 65 in over 1700 patients admitted to an acute inpatient geriatric psychiatry unit. The etiologies of late-onset
psychotic symptoms were associated with diagnoses of Alzheimer’s disease or vascular dementia (40%), major depression (33%), medical causes (7%), delirium (7%), bipolar disorder (5%), toxicity (4%), and primary psychotic disorder (4%). Therefore, a thorough neurologic and medical evaluation is necessary in the evaluation of late-life psychosis.

Risk Factors

Genetics
There is reasonable evidence that late-onset psychosis is partially genetically determined. Older literature indicates that prevalence rates of individuals with family members who have schizophrenia are similar in late-onset schizophrenia and earlier-onset schizophrenia. The trend is for late-onset psychosis to have a lower prevalence than earlier-onset psychosis but significantly higher than the general population.

Gender differences
Female gender appears to be a very strong predictor of late-onset psychosis. The incidence of late-onset schizophrenia in women starts to accelerate between the ages of 40 and 45 years. The increase becomes even more apparent over the following two decades with an excess of female to male patients with late-onset psychosis. Delusional disorder tends to have a higher female to male ratio especially over the age of 70 years.

Sensory deficits
Sensory deficits are common among patients with late-onset psychosis. Patients with sensory deficits tend to misinterpret environmental stimuli; this can be the initial event for the presentation of symptoms in individuals predisposed to develop late-onset psychosis.

Etiology
Debate about the nature of the pathology occurring in late-life psychosis has been noted in the literature. Some evidence points to a neurodevelopmental process that manifests later in life whereas other evidence points to a neurodegenerative process leading to cognitive decline and dementia with psychosis as one of the first symptoms. Studies from the prior decade found elevated rates of minor physical anomalies in patients with late-onset schizophrenia suggesting gestational developmental aberrations, as well as premorbid childhood maladjustment; these studies have lent support to a neurodevelopmental process in the etiology of late-life psychosis.

Findings from some prospective studies evaluating cognitive functioning in patients with late-onset psychosis have provided support of a neurodegenerative process. In a study by Leinonen et al. [4], 18 patients with delusional disorder and 24 patients with major depressive disorder were followed up to 10 years after an admission to a geriatric psychiatry unit. Twenty-eight percent of the patients with delusional disorder and 25% of the patients with major depression developed dementia before death or within 10 years; this finding was double the expected incidence of dementia in the general population of that age. The authors felt that the results of this study suggested that elderly patients admitted due to a major mental disorder may have an increased risk compared with the general population of developing dementia. As noted prior, Ostling and Skoog [2] found an increased risk of dementia in an 85 to 88 year-old group with the presence of both delusions and paranoid ideations.

In another long term follow up study, Brodaty et al. [5] examined 27 patients with late-onset schizophrenia on measures of psychopathology, cognition, and general functioning, and compared them with healthy controls at baseline, at 1 year and at 5 years. Nine subjects in the schizophrenia group and none of the control group had developed dementia at the 5-year follow-up. The authors suggested that late-onset schizophrenia maybe a prodrome of Alzheimer-type dementia. The authors stressed that in this study a subset of patients who eventually declined showed no evidence of cognitive decline at the 1-year follow-up assessment; this finding by the authors mandates the need for long-term longitudinal studies that try to clarify the natural history of late-life psychosis and its relationship to Alzheimer’s disease or other dementing processes.

Not all literature supports the hypothesis that the emergence of psychotic symptoms is a risk factor for dementia. From a patient database, Rabins and Lavrisha [6••] compared 28 subjects with late-onset psychosis with 48 subjects with late-life major depression and 47 subjects with dementia and psychosis who had been followed for a minimum of 1 year. The results showed an increased risk of mortality at 84 months in the dementia with psychosis group compared with the major depression group or the late-onset psychosis group. The study showed no increased risk of developing dementia in the late-onset psychosis group compared with the depression group. The authors concluded that late-onset schizophrenia is not a precursor to dementia. The authors noted that about 50% of the subjects (late-life schizophrenia and major depression) had dementia at 10-year follow-up and that this was higher than the expected 20% incidence rate.

Treatment
Atypical antipsychotics are the first-line treatment for older patients with psychosis because of the improved side effect profile compared with conventional antipsychotics. Alexopoulos et al. [7], in a sampling of American