Pseudodementia: Myths and Reality

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The term “pseudodementia” has been widely used, misused, and abused. The word is derived from Greek roots: “pseudo,” meaning false or spurious, and “dementia,” meaning to be out of one’s mind (The American College Dictionary, 1970). In psychiatry and the rest of medicine, the label pseudodementia has been applied to a wide range of conditions. At one extreme, it suggests malingering or hysterical conversion-

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Dissociation disorder in young adults who, for apparent material (as well as intrapsychic) gains, act as if they are demented but in reality are not. When such persons achieve their objectives at the conscious or unconscious level, the signs of dementia disappear. At the other end of the spectrum, this diagnosis is applied to older depressed patients who have cognitive deficits (seen even on neuropsychological testing) that may suggest a dementing disorder, such as Alzheimer’s disease. Only an astute clinician will suspect the underlying depression, treat it appropriately, and find that successful management of depression also results in resolution of the cognitive deficits. In addition, a number of other definitions of pseudodementia have been proposed by different authors.

In this article, we review the historical background and various concepts and controversies surrounding the descriptive unity of pseudodementia. We present common clinical features and discuss the differential diagnosis, course, prognosis, and treatment of the conditions included under this label.

HISTORICAL BACKGROUND

Ganser, a German neuropsychiatrist, is usually credited with the first published description of pseudode-
TABLE

Recent Concepts of Pseudodementia

- Shrarberg: “Pseudodementia has been considered (as) a provisional diagnosis for patients who appear to have primarily features of a dementing illness but actually have a depressive pseudodementia.”
- Wells: “... syndrome in which dementia is mimicked or caricatured by functional psychotic illness...”
- Caine: reversible cognitive impairment in patients with a primary psychiatric disorder in which the features of intellectual abnormality resemble, at least in part, those of “a neuropsychiatrictally induced cognitive deficit.”
- Allen: controversial term, used to describe “a clinical syndrome of apparent organic cognitive deficit due to functional psychiatric illness.”
- Bublena and Berrios: “Pseudodementia... represents a collection of clinical states rather than a process... whose common denominator is an ability to impair cognition.”
- Lishman: “... number of conditions (where) a clinical picture resembling organic dementia presents for attention yet physical disease proves to be little, if at all, responsible.”
- Jeste et al: “True pseudodementia” is characterized by a superficial resemblance to severe dementia, but the signs and course are inconsistent with a diagnosis of dementia; it suggests a hysterical or psychotic disorder, and is rare. The reversible cognitive impairment that accompanies major depression in elderly patients should not be labeled either “pseudodementia” or “dementia syndrome of depression” until the nature and course of the cognitive deficits in such patients are clarified in future studies.

menta, although he never used that term. Yet, according to Ganser, the original case report was published in German by Nissl in 1893 and was very similar to Ganser’s own patients. In his paper, Ganser described three patients at some length. He stated:

The most obvious sign which they present consists of their inability to answer correctly the simplest questions which are asked of them, even though by many of their answers they indicate that they have grasped, in a large part, the sense of the question, and in their answers they betray at once a baffling ignorance and a surprising lack of knowledge which they most assuredly once possessed, or still possess.... I have been unable to change the unalloyed impression that these signs and symptoms belong to a true sickness. ...

The most striking feature was “approximate answers”; eg, $2 + 2 = 3$ and $4 - 1 = 5$, the total number of fingers = 11. Most of the patients were prisoners accused of serious crimes. Ganser went to considerable trouble to show that these were not cases of malingering. He described several other prominent features, including visual hallucinations, defects of memory, variable clouding of consciousness, “hysterical stigma,” such as analgesia and hyperalgesia, abrupt onset, sudden resolution, and a tendency to recur. He believed that these patients with “prison psychosis” had “undoubtedly genuine symptoms” of “hysterical twilight state.”

In an excellent analysis of Ganser’s report, Scott suggested the need to distinguish between “syndrome of the hysterical twilight state closely related to schizophrenia” and “the symptom of the approximate answer which may appear in a great variety of different conditions,” including mild mental retardation, antisocial personality disorder, schizophrenia, and mood disorders.

In 1952, Madden et al first used the word pseudodementia to describe patients in whom signs of apparent dementia disappeared on successful treatment of the underlying psychotic condition. Kiloh, in 1961, and a number of authors thereafter published case reports of patients with different psychiatric disorders, primarily depression, who presented with a clinical picture of dementia but responded to treatment, with a resolution of the cognitive deficits. These patients were thought to be pseudodemented. Foster and McHugh recommended that the term pseudodementia be replaced by “dementia syndrome of depression” because cognitive impairment in elderly depressed patients was genuine, although reversible.

CURRENT CONCEPTS

The Table summarizes some concepts of pseudodementia in recent literature. Most authors agree that pseudodementia presents as a syndrome apparently indistinguishable from dementia and resolves after successful treatment of the underlying psychiatric disorder. There is a diversity of opinion, however, about using the term in a narrow sense as a depressive disorder associated with cognitive impairment in an elderly patient versus using it in the broader frame of a psychiatric disorder (schizophrenia, mania, conversion disorder) presenting with the clinical picture of apparent dementia. Reifler’s and Addonizio and Shamoian’s excellent evaluations and critiques of the concept of pseudodementia are examples of a growing trend to reappraise this dissatisfying concept.

A number of issues related to pseudodementia remain unclear. Are the cognitive deficits seen in older depressed patients genuine deficits comparable to those observed in other instances of reversible dementia, such as hypothyroidism or normal pressure hydrocephalus? (continued on page 75)
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An important test of the "falsehood" of dementia may be performed on neuropsychological testing.

6.3% had been given an additional diagnosis of dementia. (They would probably have qualified for DSM-III-R diagnosis of dementia with depression.) Of the 48 patients, 27% seemed to have a dementia syndrome of depression; i.e., the cognitive function returned to normal range after successful treatment of depression.

Kiholm and Smith studied 200 patients admitted to rule out a dementing disorder. After evaluation, 19 patients were found to have a "pseudodemencing functional illness." (Although the authors gave a total number of 20, one patient had thyrotoxic dementia and should, therefore, not have been included in this category). Only one patient with pseud dementia was over 65 years of age (1.8% of all the hospitalized patients over age 65). In the 19 patients with pseud dementia, the following illnesses were identified a causes of cognitive decline: 10 patients were depressed and responded to antidepressant medication with or without electroconvulsive therapy, 7 patients were found to suffer from schizophrenia, and 2 patients were hypomanic, responding to lithium with or without neuroleptics.

Ron et al., in a retrospective chart review of 51 patients, rejected the diagnosis of dementia in 16 (31.3%) patients. In only seven cases (13.7%), the authors felt confident enough to assign a primary psychiatric diagnosis.

In a widely quoted study, Marsden and Harrison examined 106 patients admitted to neurology service with a presumptive diagnosis of dementia. In 15 patients (14.1%), "no evidence of intellectual impairment" was reported. Ten patients (9.4% of the total sample) were listed as suffering from a primary psychiatric disorder: depression (8 patients), hysterical reaction (1 patient), and mania (1 patient). In the remaining five patients, drug toxicity, epilepsy, and unknown causes were listed.

The reports mentioned above give divergent figures for the prevalence of pseudodementia. Two important reasons for these discrepancies are differences in patient populations (in terms of age, hospitalization, primary referral source, etc.) and in diagnostic criteria. It is safe to suggest, however, that among patients presenting with symptoms of dementia, a variable proportion exhibits a primary psychiatric disorder. Yet, the mere coexistence of the two does not necessarily indicate psychogenic nature or reversibility of cognitive impairment. For example, a review of literature suggests that between one fourth and one half of patients with Alzheimer's disease have symptoms of psychosis or depression. To obtain an estimate of the prevalence of pseudodementia, it is necessary to demonstrate reversibility of cognitive impairment on treatment of the psychiatric disorder—a criterion that most published studies did not employ.

CLINICAL FEATURES

A fascinating and graphic description of patients with pseudodementia can be found in the classic report by Ganser. Wells, in his widely cited article, has also given a rather detailed description of the prominent clinical features observed in 10 patients presenting with symptoms suggestive of pseudodementia. All patients showed a wide array of cognitive dysfunction, including inability to orient themselves in new settings, inability to perform previously well-learned tasks, difficulties in understanding questions or following instructions, poor concentration, and distractibility, with mem-
ory dysfunction being the most consistent and prominent concern. Most patients also had some nonspecific psychiatric symptoms, such as anxious or depressed mood, agitation, and social withdrawal.

Other authors\textsuperscript{19,28} stress the discrepancy between subjective reports of memory dysfunction and objective findings in these patients. Also emphasized is the marked fluctuation of performance over time on neuropsychological testing and the patients' pronounced subjective concerns regarding their recollection. Haggerty et al.\textsuperscript{28} further mention a slowed psychomotor response and certain other features these patients tend to exhibit, eg, poor concentration, inattentiveness, short attention span, easy distractibility, decreased motivation, and reduced social interaction. They also note an observable marked dependency, which is seen in the form of increased demands on outside support.

Because of the variable use of the term pseudodementia by different authors, there can be no single pathognomonic clinical picture of such a condition. The practitioner evaluating a patient presenting with signs of possible dementia should look for signs of a psychiatric disorder. Any signs of cognitive impairment that are not typical of an irreversible dementia should lead to an especially vigorous search for possible psychogenic factors in the etiology.

**DIAGNOSIS**

The *DSM-III-R*\textsuperscript{23} does not include pseudodementia among its diagnostic categories. It does, however, differentiate dementia with depression from major depression (with pseudodementia) based on the dominant symptom constellation as follows:

If the presenting symptoms suggesting dementia are significantly more prominent than the depressive ones, then the diagnosis should be dementia with depression. If the symptoms suggesting a major depressive episode are at least as prominent as those suggesting dementia, it is best to diagnose a major depressive episode and assume that the symptoms suggesting dementia represent pseudodementia. A therapeutic trial with an antidepressant drug or electroconvulsive therapy (ECT) (if not contraindicated) may clarify the diagnosis.

A notable omission in the *DSM-III-R* is a mention of nondepressive "pseudodementias."

Diagnostic vigilance on the part of the clinician is needed to avoid a critical error in management; that is, withholding effective treatment from a patient who suffers from depression or another treatable psychiatric or medical illness and misdiagnosing that patient as demented. It must be emphasized that correct clinical diagnosis is based on history, physical examination, and neuropsychiatric evaluation, including mental status assessment; there is no laboratory test to confirm or rule out the diagnosis of either depression or dementia. Relative severity of the symptoms of psychiatric disorder and cognitive impairment, as well as a temporal relationship between the two, need to be evaluated. Also crucial to diagnosis is the demonstration of reversibility of the apparent dementia upon treatment of the psychiatric disorder; the dementia may even reverse spontaneously.

**Neuropsychological Performance**

An important test of the "falsehood" of dementia may be performance on neuropsychological testing. Yet, few prospective studies have been aimed at defining the specific nature of the deficits underlying pseudodementia and at following the long-term course of such deficits in patients compared with well-selected control groups.\textsuperscript{29} In a recent report, Alexopoulos et al.\textsuperscript{30} compared the cognitive performance in 26 depressed elderly patients with reversible dementia and 11 elderly depressives with irreversible dementia. The authors found that inability to recall four objects in 5 minutes and preserved ability to perform simple calculations predicted favorable outcome of cognitive impairment in elderly depressed patients.

**DIFFERENTIAL DIAGNOSIS OF REVERSIBLE DEMENTIA DUE TO PSYCHIATRIC CAUSES**

The range of differential diagnosis in a patient presenting with cognitive decline is broad, encompassing most of the well-known conditions in the differential diagnosis of dementia. The major psychiatric disorders that can present with cognitive dysfunction resembling a dementing disorder include mood disorders (major depression and bipolar disorder), schizophrenia, conversion or dissociation disorder, and adjustment disorders.

**Major Depression**

Along with anhedonia or depressed mood for at least 2 weeks and concomitant weight changes, sleep disturbances, agitation or retardation, feelings of guilt, and loss of energy, the *DSM-III-R*\textsuperscript{23} acknowledges the presence of "diminished ability to think or concentrate" as one of the criteria of major depression. "An organic factor initiating or maintaining the disturbance" should be absent. These criteria describe the typical presentation of depression, yet some important factors need to be considered further in elderly patients:

- The "diminished ability to think" could be more pronounced in the elderly patient and present as the most prominent symptom.
A substantial number of elderly depressives present with "atypical" symptoms of depression or masked depression. Presenting symptoms may include increased somatic complaints, hypochondriasis, apathy, fatigue, and anxiety.31

Most elderly patients have concomitant medical illnesses confounding and influencing the presentation of a mood disorder. Thus, an apparent cognitive decline as well as a more "somatic" presentation are frequently encountered in elderly depressed patients.

Bipolar Disorder

The manic phase of bipolar illness can present with signs and symptoms suggestive of dementia.16,32 Although the exact frequency is not known, this complication of bipolar illness seems to occur rarely. It poses a diagnostic challenge primarily in a patient with marked distractibility, confusion of short duration, hyperactivity, disinhibition, and increasing incoherence. These patients respond to lithium with improvement of their affective as well as cognitive dysfunction. Therefore, withholding appropriate treatment (lithium) could be harmful. Affective symptoms, a history of mood disorder, and a positive family history are helpful in assisting the clinician in this potentially difficult diagnostic dilemma.16,32

Schizophrenia

Another major psychiatric disorder that can present with mental changes similar to dementia is schizophrenia. In a recent review of the literature, Harris and Jeste33 suggested that late-onset schizophrenia is an uncommon but valid diagnostic entity. In an elderly schizophrenic patient with either acute psychotic breakdown or chronic paranoid delusions and prominent negative signs, the original primary psychiatric illness can be confused with a newly developing or an ongoing demening process.14,15

Conversion or Dissociation Disorder

Cognitive difficulties may be symptomatic of hysterical conversion or dissociation disorder. The "hysterically" demented patient displays a pronounced contrast between performance on structured testing, such as mental status examination, and the ability and competence to function in unstructured situations. This observation together with close observation of the patient's nonverbal communications is seen by some authors as a useful tool to direct the diagnostic process.34

Adjustment Disorder

Later life is usually a period of multiple losses. Not only does the person have to cope with inevitable physical decline but also with psychosocial stresses, such as retirement and deaths of family members and friends. Preoccupation with the loss and subsequent increased forgetfulness can mimic a picture of dementia.

Side Effects of Psychotropic Medications

Although not "psychogenic" causes of cognitive impairment, side effects of psychotropic medications are included here because they are important to consider in the psychiatric assessment of patients presenting with signs of dementia. The anticholinergic properties of a number of psychotropic medications are especially bothersome in the elderly patient. There is an increased sensitivity to the peripheral effects of these medications (ie, postural hypotension, urinary hesitancy, and decreased bowel motility) as well as a greater risk of central anticholinergic effects, producing marked cognitive changes, even frank delirium. Drugs with anticholinergic side effects should be used cautiously in the elderly.

COURSE

Most of the information about course and treatment response has to be obtained from case reports. The shortest period associated with considerable symptom improvement has been days, whereas other case descriptions report improvement and return to premorbid functioning within weeks to months after initiation of appropriate management.16,35,36

That patients with an apparently dementing illness either do not have a deteriorating course or improve over time is considered to be one of the hallmarks of pseudodementia. Nevertheless, systematic long-term follow-up studies of patients with pseudodementia have been rare. In a remarkable study, Kral37 followed 22 patients (mean age 76.5 years) with a diagnosis of depressive pseudodementia at semiannual intervals for 4 to 18 years (mean 8 years). An astonishingly high number of patients (20, or 90.9%) were found to have developed Alzheimer's disease by the end of the follow-up period. This diagnosis was confirmed on neuropathologic examinations of the three available brains. This work raises serious questions about the nature and long-term course of so-called depressive pseudodementia. Also, the concept of depression as a "functional" disorder should be challenged in view of a number of studies suggesting structural brain alterations in patients with major depression.38

TREATMENT

Treatment of a patient with pseu-
dementia is guided by suspecting an underlying condition. Depressed patients may need antidepressant medication in an adequate dose and for an appropriate length of time. The choice of drug should be guided by target symptoms and especially by consideration of adverse effects (eg, trazodone has little cholinergic blocking property). Electroconvulsive therapy may be quite effective in elderly patients with depression and also should be considered. In elderly bipolar patients, alternatives to lithium, if needed, are medications such as carbamazepine. Late-onset schizophrenic patients respond symptomatically to relatively low doses of neuroleptics. In all of these and other (eg, conversion disorder) cases, the importance of suitable forms of psychotherapy and social interventions must be stressed.

SUMMARY AND CONCLUSIONS

The word pseudodementia has been interpreted differently by various authors. True pseudodementia should suggest a psychogenic condition, secondary to hysterical conversion, dissociation disorder, or psychosis, in which the obviously spurious signs of dementia may resolve upon obtaining the desired material gains or even spontaneously. This type of clinical picture, described originally by Ganser, has become quite rare. Today, the term pseudodementia usually refers to the reversible cognitive deficits observed in older depressed patients. The laudable goal behind such nomenclature is to ensure that all possible treatable depressions are detected in patients with cognitive impairment (rather than being misdiagnosed as an irreversible dementia, such as Alzheimer’s).

Unfortunately, labels, such as pseudodementia or dementia syndrome of depression, are not appropriate for describing the cognitive deficits seen in some patients with major depression. (To give an analogy, the dementia accompanying hypothyroidism is not called either pseudodementia or dementia syndrome of hypothyroidism.) Until the

Depression and other psychiatric disorders should be considered at the top of the list of conditions that can present with reversible dementia.

REFERENCES


