The Treatment of Depression in Elderly Patients

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Primary care physicians provide a large proportion of psychiatric care today, especially for elderly persons with limited resources and concomitant medical diseases. To determine the frequency and type of psychiatric care provided by internists, the experience of a large academic group practice was studied. Depression was the most frequent psychiatric diagnosis among persons over 59 years of age and the fifth most common of all diagnoses made by physicians. Consultations with psychiatrists were infrequent and were used primarily for confirmation of the diagnosis. Physicians generally treated the depression with supportive counseling and often employed pharmacologic therapy with tricyclic antidepressants. Elderly patients were less likely than younger patients to receive tricyclic antidepressants, and they received lower doses. The observed response to antidepressant drugs was positive but required at least 50 mg to be taken daily. Side effects were frequent, especially at doses greater than 100 mg/d, but generally not severe.

Depression is the most important and most common emotional problem affecting elderly persons.[1-4] Almost 20 percent of elderly adults suffer from significant symptoms of depression, often caused by the loss of spouses, family, friends, health, independence, and financial resources.[5] Primary care physicians are the principal psychiatric resource for early diagnosis and therapy for most of these patients because they commonly have chronic medical disorders accompanied by both medical and psychiatric complaints.[4-7] In addition, aged persons have less access to the specialized mental health sector because they lack financial resources and tend to disapprove of undergoing psychotherapy.[8]

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As funds for mental health centers and professionals decrease, medical practitioners will continue to be important sources for psychiatric care. The nature of psychiatric care provided by medical practitioners, their use of drugs, and their referral of patients to consultants have not been examined in detail. This report describes the experience of a large primary care group practice in managing elderly medical patients with depression.

Methods

The study was conducted in the Internal Medicine Associates and Primary Care Program at the Massachusetts General Hospital, an ambulatory group practice staffed by general internists and internal medicine residents. All of the 18 physicians whose patients are reviewed here have had special training in the recognition and management of psychiatric problems, but they were not aware that this aspect of their practice would be studied. In a 22-month period between January 1979 and

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Table 1. Frequent Medical Diagnoses in Elderly Patients

Diagnosis	Total n=1,661 No. (%)	Depressed People n=168 No. (%)
Hypertension	584 (35)	73 (44)
Ischemic heart disease	295 (18)	37 (22)
Osteoarthritis	228 (14)	31 (19)
Diabetes mellitus	180 (11)	22 (13)
Depression	168 (10)	168 (100)
Chronic lung disease	149 (9)	19 (11)
Congestive heart failure	143 (9)	20 (12)

November 1980, 3,461 consecutive patients had demographic, diagnostic, and therapeutic information routinely entered into a computerized data bank. Patients aged over 59 years who had a diagnosis of depression or who received tricyclic antidepressants were identified and compared with other patients in the practice. The written medical records of the elderly patients treated for depression were reviewed for clinical characteristics of the disorder, therapeutic interventions, and observed response.

Results

Of the 3,461 patients surveyed, 1,934 (56 percent) were women and 1,527 (44 percent) were men. There were 1,861 (53 percent) patients aged over 59 years, reflecting the prevalence of aged persons in this practice. Elderly women were more common than elderly men, with 1,021 (55 percent) women and 840 (45 percent) men.

Diagnosis of Depression

Clinical psychiatric disorders were recognized by physicians in 20 percent of all patients, of whom 9 percent were diagnosed as depressed and 7 percent as anxious. The diagnoses recorded by internists were based principally on their clinical interview and examination. In only four patients was the current depressive episode diagnosed by a psychiatrist prior to the consultation with the internist. The peak prevalence for depression occurred in the sixth decade. However, because of the predominance of older patients in the practice, 168 of the 297 (57 percent) depressed patients were over the age of 59 years. The depressed older patients were representative of elderly general medical patients, having a high prevalence of serious chronic medical diseases (Table 1). While depressed patients were more likely to have concomitant chronic medical diseases, no specific disorder was closely associated with depression. Fifty-one of 168 (30 percent) of the depressed elderly patients had a history of previous affective disorders, but in only 8 (5 percent) were these disorders sufficiently severe to have required psychiatric hospitalization. Fifteen patients were identified as suffering from prolonged unresolved grief reactions. No patient was recognized as having manic-depressive illness, psychosis, or a significant suicidal risk, and no one was hospitalized for depression during the course of the study.

Referral of Patients

Mental health professional consultation was obtained in less than 25 percent of all the depressed patients. Five percent of depressed patients were seen by the social service for confirmation of the diagnosis, and 10 percent of depressed patients were referred specifically for counseling. Six percent were seen regularly by nurse practitioners for supportive care. Only four patients (3 percent) saw a psychiatrist regularly for treatment of their depressive illness.

Treatment of Depression

The depressive illness was usually treated with supportive counseling by the physician as part of general medical care. The patient visits averaged 20 minutes, with issues of general medical care addressed as well. The average interval between

Table 2. Response to Tricyclic Antidepressant Therapy

Dose (mg/d)	Response			
	None No. (%)	Partial No. (%)	Complete No. (%)	Side Effects* No. (%)
0 to 49	7 (58)	1 (8)	4 (33)	1 (8)
50 to 100	7 (23)	6 (20)	17 (57)	2 (7)
100	0	0	8 (100)	3 (38)
Total	14 (28)	7 (14)	29 (58)	6 (12)

*Sufficient to necessitate a change or discontinuation in therapy

follow-up visits was eight weeks. No physician attempted intensive psychotherapy with his or her patients.

Forty of 168 (24 percent) of the elderly patients were taking drugs that may be associated with depression (methyldopa, reserpine, propranolol, or clonidine). Of these patients 12 were initially thought to have drug-associated depression, but only six responded to a change in medication.

Fifty-two elderly patients were treated with tricyclic antidepressants for at least one month. Fifty (96 percent) patients were treated for the diagnosis of depression. In the remaining two patients tricyclics were prescribed as a therapeutic trial for suspected depression in the presence of dementia. The 50 (30 percent) of a total of 168 elderly depressed patients treated with tricyclic antidepressants represent a somewhat smaller fraction than 56 (43 percent) of 120 younger depressed patients treated pharmacologically. The drugs were prescribed by medical physicians in 50 cases and by psychiatrists in the remaining 2 cases. No patients received minor tranquilizers and tricyclic antidepressants simultaneously. Minor tranquilizers were prescribed for concomitant symptoms of anxiety and insomnia, not primarily for depression.

Only four tricyclic antidepressants (desipramine, imipramine, amitriptyline, doxepin) were prescribed, each in approximately equal frequency. Initially, each drug was prescribed at a low dose and then gradually increased until a therapeutic response or significant side effect was observed. The average maximal sustained drug dose for depressed elderly patients was 73 mg/d with a range of 25 to 150 mg/d. The average maximal sustained dose for patients younger than 60 years similarly treated with tricyclics was 102 mg/d with a range of 25 to 200 mg/d. The median duration of drug therapy in elderly patients was 5 months, with a range of 1 to 30 months. Twelve patients were treated continuously for one year or longer.

The response to tricyclic antidepressant therapy is outlined in Table 2. Response was judged by patient and physician assessment of improvement in affect and associated somatic symptoms as recorded in the medical record. Thirty-six of 50 (72 percent) patients had a partial or full response to drug therapy, and 14 (28 percent) had no improvement. The drug response was directly related to the maximal sustained dose. All the patients who received more than 100 mg daily had full return to their premorbid affect, while 23 out of 30 (77 percent) patients who took 50 to 100 mg daily had full or partial response. Five of 12 (42 percent) patients who received less than 50 mg daily had partial or full response, a proportion only slightly above the expected rate of spontaneous resolution.

Twelve of 52 patients were recognized as having side effects attributable to tricyclic antidepressants, mostly from the anticholinergic or sedative properties of the drugs (Table 3). Six patients (12 percent) suffered side effects that necessitated temporary or permanent change in therapy (Table 2). Only 7 percent of patients whose maximal sustained daily dose was 100 mg or less required a change of therapy, whereas 3 of 8 (38 percent) patients who were given more than 100 mg daily were unable to tolerate the drug. The relative frequency of positive therapeutic responses and significant side effects suggests that the greatest likelihood for a favorable response and the least likelihood of important side effects occurs with a dose from 50 to 100 mg daily.

Table 3. Side Effects and Complications During Tricyclic Antidepressant Therapy (n=52)

	No. (%)
Urinary hesitancy	2 (4)
Dry mouth	2 (4)
Palpitations	1 (2)
Dysphoria	1 (2)
Confusion	1 (2)
Drowsiness	2 (4)
Dizziness	2 (4)
Myocardial infarction	1 (2)
Total	12 (24)

Considering the high prevalence of serious cardiac disease in elderly persons and the potential complications of treatment with tricyclic antidepressants, the 19 persons with cardiac disease who were treated with tricyclics were reviewed. These patients were prescribed a somewhat lower average dose (62 mg/d) than patients without heart disease. Desipramine and doxepin were used more frequently than the other tricyclics. Only two patients had cardiac complications during the antidepressant therapy. One woman with stable angina developed a crescendo pattern and suffered a subendocardial myocardial infarction ten days after her desipramine was increased from 50 mg/d to 100 mg/d. Another patient noted an increase in symptomatic palpitations on 100 mg of desipramine per day that resolved when the daily dose was decreased to 75 mg.

Discussion

Primary care physicians provide a large proportion of mental health care by recognizing and referring patients with psychiatric disease as well as managing the patients' illness. Myers and Weissman,[5] reporting a survey from New Haven, Connecticut, found that in any one year 31 percent of people in the community received help for a psychiatric disturbance and 25 percent of these patients principally consulted primary care physicians. Over a lifetime, 78 percent of people had an emotional disturbance, 46 percent of whom received treatment from a nonpsychiatric physician. Reiger et al[4] estimated that 15 percent of adults have a diagnosable psychiatric disorder within any one year, and that over 50 percent use general medical physicians exclusively, whereas only 20 percent receive treatment within the mental health system.

Depression is the most frequent psychiatric diagnosis in elderly patients and was the fifth most common diagnosis made by internists in this ambulatory practice.[1,3,9-11] The true prevalence of depression is undoubtedly higher because general physicians often fail to recognize psychiatric disorders in their patients.[6,12,13] The physicians in this practice, however, have had special training in the diagnosis and management of psychiatric disorders, which may account for the higher rate of psychiatric disease detected when compared with other medical practices.

The physicians' treatment consisted of general counseling and tricyclic antidepressants. The counseling was not intensive or exhaustive but broad and intermittent. Psychiatric referral was infrequent and was used not for therapy, but principally for a second opinion regarding the diagnosis. Intensive counseling was provided by social service case workers on referral.

Pharmacological therapy with tricyclic antidepressants was the mainstay of treatment of serious depression in these elderly patients. The drugs were used despite the high incidence of serious coexistent medical diseases, some of which may be considered relative contraindications to tricyclic use. Minor tranquilizers were rarely used to treat patients who were recognized as depressed, a practice that differs somewhat from other reports.[14,15] Drugs with lower anticholinergic effects were used more often and in lower doses in patients with cardiac disease than in other patients.

It is generally recommended that doses of tricyclic antidepressants be reduced when treating elderly patients, but few clinical data have appeared in the literature reporting the use of these agents specifically in the elderly.[16,17] A pharmacological study of tricyclic antidepressants in the elderly demonstrated that older patients have higher steady-state plasma levels and a decreased rate of drug elimination.[18]

In this medical practice the response to tricyclic antidepressants was good, but somewhat less positive than in younger patients. The difference may be due to subtherapeutic doses, because one fourth of the patients received less than 50 mg daily. The principal reasons for underdosage were

poor patient tolerance and physician apprehension about administering higher doses to elderly patients with medical illnesses and relative contraindications.

The side effects of tricyclic use in this population were frequent but usually not severe. Because data from the medical records were used, the incidence of side effects and complications was probably underestimated; however, significant complications and bothersome side effects were noted. Overall, about 20 percent of the patients were observed to have side effects, about one half of which were of sufficient severity to warrant a change of therapy. This response is in agreement with the literature, where it has been reported that 10 to 15 percent of patients aged over 60 years on imipramine had side effects serious enough to require a change in their regimen.[19] In the patients in this study, orthostatic hypotension did not seem to be especially troublesome, though an increased incidence of clinically significant orthostatic hypotension has been reported in elderly patients on imipramine.[20] Recent data suggest that ventricular performance, cardiac rhythm, and ischemic risk are not significantly altered in patients with heart disease who are treated with antidepressants.[21] The only serious complication was a myocardial infarction, which occurred shortly after a dose increase. Since the association was only temporal, it is unclear whether the myocardial infarction was in fact due to the medication. Complications and side effects of tricyclic antidepressants were clearly more common with doses over 100 mg daily. Definition of the appropriate and safe doses of tricyclic antidepressants in elderly persons needs further study.

Compared with rates for other clinics and practitioners, the rate of detection of psychiatric illness in general, and of depression in particular, reported in this practice is relatively high. It is interesting that, in contrast with this high rate of case identification, relatively low rates of psychiatric referral (3 percent) and consultation (25 percent) were found. The vast majority of the treatment was undertaken by the internists themselves, though the actual amount of time spent with the patients was quite small. This may be because most of the depressions were relatively mild, as none of the patients were thought to be suicidal, psychotic, or in need of hospitalization. The Massachusetts General Hospital maintains a close working relationship between psychiatry and general medicine, and psychiatric services are accessible. In light of this availability and collaborative relationship, the low utilization of psychiatric services suggests that providing mental health care is accepted as part of the practice of primary care medicine. Further investigation is needed to define the proper scope of the role of the primary care physician and to establish useful guidelines and standards for care.

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