

Retrospective utilization patterns of antidepressant medications

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Abstract

To investigate the prevailing prescribing practices in the treatment of depression and to determine whether these practices reflects research findings. Patient profiles were reviewed retrospectively between February 2006 to January 2007 in private hospital at Chennai. The total study population includes 750 patient. According to this study , SSRIs agent are favored as first line treatment in a first episode of depression and are prescribed more frequently because the side effects are better tolerated than the older drugs. At the time this study was conducted, the newer antidepressants SSRIs and the SNRIs were prescribed in the majority of cases. . The study data demonstrated significant problems in the dose and duration of antidepressant treatment in this population. The results of the present study should be used as a discussion tool by pharmacists with physicians in order to optimize prescription habits for antidepressant usage.

INTRODUCTION

Depressive disorder is one of the most prevalent forms of mental illness and is of major public health importance. It is characterized by abnormal and persistent low mood, accompanied by other symptoms including sleep disturbance, loss of appetite, suicidal thoughts, impaired concentration and attention, guilt and pessimism. Symptoms vary in severity and the pattern of illness can range from an isolated and relatively mild episode, through recurrent episodes of moderate severity, to chronic and persistent severe illness¹ and it is clear the disorder has a significant impact on the quality of life and functional status of the patient².

The past decade has seen an increase in the number and type of antidepressants available to psychiatrists and other clinician's. It is important to better understand current prescribing practices and to what degree these practices reflect research findings.

The Agency for Health Care Policy and Research (AHCPR) guideline states that major depressive disorder (MDD) can be successfully managed with antidepressants, psychotherapy or a combination^{3,4}. Effective management of MDD with antidepressants requires adequate dose and duration of therapy. Six weeks of therapy are required before a clinical improvement can be observed. If patients completely respond to treatment, maintenance treatment is

recommended, usually with the same drug at the same dosage over a period ranging from four to nine months which is usually the average duration of a major depressive episode.

Olfson and others surveyed in 1993/1994 and found that the SSRIs were the preferred anti depressants in the out patient setting in 63% of cases and the TCAs nortriptyline was used in only 7% of visits. The trend to use selective serotonin reuptake inhibitor (SSRIs) more often than the older TCAs occurred without there being clear evidence to support greater efficacy or cost-effectiveness⁵.

Adherence to guidelines is often compromised by an unsatisfactory course of therapy, leading to either premature interruption of the medication regimen or subtherapeutic dosing⁶. These problems were found mainly related to the use of older antidepressant medications (TCAs)^{7,8} because of their less favorable side effect profile⁹. New antidepressants such as selective serotonin reuptake inhibitor SSRIs, have exhibited efficacy rates similar to those of TCAs, but they are safer, better tolerated and more convenient to take¹⁰.

The purpose of this study was to examine prevailing prescribing practices in psychiatric services and to determine to what degree these practices reflect research findings.

MATERIALS AND METHODS

For the present study, patient profiles were reviewed retrospectively to quantify anti depressant prescribing practices. The study evaluated data recorded from February 2006 to January 2007 in private hospital in chennai. The data included information on age, gender, and marital status, first –line preferences in the treatment of depression, duration of therapy for a first episode of depression and frequency of consultation.

PATTERNS OF ANTIDEPRESSANT USE

Agency for health care policy and research (AHCPR) guidelines were used as a standard for evaluation of appropriateness of therapy regarding minimum therapeutic dose and adequate duration⁴. These guidelines specify that antidepressant drug therapy should continue for between four to six months.

RESULTS

The total study population included 750 patients of which 59.05% of female and 40.93% of male. The marital status of the patients 84.53% married and only 15.46% unmarried (Table 1)

The SSRIs were prescribed most frequently 48% in the treatment of a newly case of major depression followed by the SNRIs 17% (table 2) Of the SSRIs fluoxetine 23% and sertraline 20% were favored. SNRIs, venlafaxine 17% were mostly prescribed. Tricyclic used most frequently in the treatment of depression was imipramine 8%. In case Of MAOIs, 6.4% of mianserin and 1.2%, of moclobemide were prescribed. (Table 2) Mean dose received by the patients are given in (Table 3).

Only 14% received a minimum of six months of continuous therapy during the study period. In comparison 60.93% of these patients received therapy for less than three months and 25.2% received continuous therapy for three to six months.(Table 4)

In the first month of treatment the frequency of consultation by patients, only 35.46% of patients saw physician once per week (Table 5)

Figure 1

Table 1: Study population characteristics

| Age group | Number of patients n=750 (%) | Number of female. (%) | Number of male (%) | Marital status | |
|-----------|------------------------------------|--------------------------|-----------------------|----------------|------------------|
| | | | | married (%) | unmarried (%) |
| 0-19 | 76 (10.13) | 52 (6.93) | 24 (3.2) | 4 (0.5) | 72 (9.6) |
| 20-39 | 320 (42.66) | 188 (25.06) | 132 (17.6) | 288 (38.4) | 32 (4.26) |
| 40-60 | 252 (33.6) | 135 (18) | 117 (15.6) | 240 (32) | 12 (1.6) |
| <60 | 102 (13.6) | 68 (9.06) | 34 (4.53) | 102 (13.6) | 0 (0) |
| Total | 750 (100) | 443 (59.05) | 307 (40.93) | 634 (84.53) | 116 (15.46) |

Figure 2

Table 2: Antidepressant Therapy

| Anti depressants | Number of patients n = 750 | Percentage of patients |
|-------------------------|-------------------------------|------------------------|
| SSRI | 363 | 48.38 |
| Fluoxetine | 169 | 22.53 |
| Sertraline | 152 | 20.26 |
| Citalopram | 35 | 4.66 |
| Fluvoxamine | 7 | 0.93 |
| SNRI | 125 | 16.66 |
| Venlafaxine | 125 | 16.66 |
| TCA | 64 | 8.53 |
| Imipramine | 60 | 8.0 |
| Dotheipin | 4 | 0.53 |
| MAOIs | 57 | 7.6 |
| Mianserin | 48 | 6.4 |
| Moclobemide | 9 | 1.2 |
| Other depressant | 111 | 14.78 |
| Lithium | 32 | 4.26 |
| Haloperidol | 32 | 4.26 |
| Olanzapine | 27 | 3.6 |
| Nitrazepam | 20 | 2.66 |
| Others | 30 | 4.0 |

Figure 3

Table 3: Mean daily dose of antidepressant drugs

| Antidepressants Dosage | Number of patients | Mean Dose |
|--------------------------------------|--------------------|-----------|
| Fluoxetine 20mg 40mg | 114 55 | 26.50 |
| Sertraline 50mg 100mg 150mg | 140 7 5 | 52.63 |
| Citalopram 20mg 40mg | 30 5 | 22.85 |
| Fluvoxamine 50mg 100mg | 5 2 | 64.28 |
| Venlafaxine 75mg | 125 | 125 |
| Imipramine 50mg 100mg 200mg | 9 49 2 | 95.83 |
| Dotheipin 75mg | 4 | 75 |
| Mianserin 10mg 20mg | 37 11 | 10 |
| Moclobemide 150mg 300mg | 7 2 | 183.33 |

Figure 4

Table 4: Length Of therapy for first episode depression.

| Time | N | % |
|------------------------|-----|-------|
| Less than three months | 457 | 60.93 |
| Three to six months | 189 | 25.2 |
| Six months or more | 104 | 13.86 |

Figure 5

Table 5: Frequency Of consultation in the first month of treatment

| Frequency of consultation | N | % |
|---------------------------|-----|-------|
| More than once per week | 52 | 6.93 |
| Once per week | 266 | 35.46 |
| Once every two weeks | 309 | 41.2 |
| Once every three weeks | 77 | 10.26 |
| Once every four weeks | 32 | 4.26 |
| Others | 14 | 1.89 |

DISCUSSION

This study does not address the relative effectiveness of different antidepressants in the treatment of different antidepressants in the treatment of depression but illustrates how these medications have been used. The specific antidepressant agents prescribed and the preference for the class were SSRIs 48% and SNRIs 17% over the TCAs 9%. According to this study, SSRIs agents are favored as first line treatment in a first episode of depression and are prescribed more frequently than TCA agents. The SSRIs were probably the drug class of choice because the side effects are better tolerated than the older drugs. Antidepressant therapy has demonstrated that these medications are often given at subtherapeutic doses for insufficient treatment duration! Clinical trials demonstrate that increasing the dose results in the medication becoming less acceptable to the patients. Consequently, dropout rates may grow as dose and length of therapy increase¹². Most physician were treating a first episode of depression for a period of three months and 35.46% patients saw physician once per week.

The present analysis of data reflected only patients actual rates of medication use and may not reflect the doses prescribed by the physicians. Because of the retrospective nature of the analysis, no confirmation of information reported on the data file was possible.

CONCLUSION

At the time this study was conducted, the newer antidepressants the SSRIs and SNRIs were prescribed in the majority of cases than the older antidepressants such as the TCAs and MOAIs they were probably favoured because their use was associated with fewer side effects and better patient compliance. The study data demonstrated significant

problems in the dose and duration of antidepressant treatment in this population. Most important, previous research shows that failure to achieve an adequate course of therapy may result in an increase in the total cost of treatment^{13,14}. The results of the present study should be used as a discussion tool by pharmacists with physicians in order to optimize prescription habits for antidepressant usage.

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