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Short Communication

Anti-depressant drug prescription pattern for depression at a tertiary health care center of Northern India

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This study was carried out to observe prescription pattern of anti depressants as well as other psychotropic medications for the treatment of depression. A sample of 100 adult patients was selected to participate in the study. First five patients of depression (with or without psychotic symptoms) from twenty out patient departments (OPDs) of various consultant psychiatrists of Department of Psychiatry, C.S.M. Medical University, Lucknow, were included with the sample. It was found that a large number of patients (84%) were co-prescribed Clonazepam. It was observed that 16% of the patients were prescribed a combination of two antidepressants. 19% of the patients were co-prescribed antipsychotics for the treatment of their psychotic symptoms. Duloxetine was found to be the most frequently prescribed anti depressant while Paroxetine was the least frequently prescribed antidepressant.

Key words: Antidepressants, depression, prescription pattern.

INTRODUCTION

Anti-depressant refers to a drug that reverses or ameliorates clinical depression (Robert, 2004). The treatment of depression was dramatically changed about a half-century ago with the introduction of two classes of agents that were discovered by serendipity: monoamine oxidase inhibitors (MAOIs) and the tricyclic antidepressants (TCAs) (Pacher and Kecskemeti, 2004). In the guidelines formulated by the agency for health care policy and research (AHCPR), it has been mentioned that major depressive disorder (MDD) can be successfully managed with antidepressants, psychotherapy or a combination (agency for health care policy and research April, 1993a). 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 did a study in 1993 and 1994. They found that the selective serotonin reuptake inhibitor (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 (SSRIs) more often than the older TCAs occurred without being a clear evidence to support greater efficacy or cost-effectiveness (Olfson, Marcus, Pincus, Zito, Thompson, Zarin, 1998). In a study carried out by Francesca et al. it was found that there were significant differences in anti-depressant utilization patterns.

Problems in the dose and duration of antidepressant treatment were also observed in study population (Francesca et al., 1999). According to Venturini et al. adherence to guidelines is often compromised by an unsatisfactory course of therapy, leading to either premature interruption of the medication regimen or sub-therapeutic dosing (Eisenberg, 1992). These problems were found mainly related to the use of older anti-depressant medications (TCAs) (Katon, Korff, Lin, 1992 and Katzelnick, Kobak, Jefferson, 1996) because of their less favorable side effect profile (Rudorfer, Manji, Potter, 1994). New antidepressants such as selective serotonin re-uptake inhibitor, have exhibited efficacy rates similar

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to those of TCAs, but they are safer, better tolerated and more convenient to take (Anderson, Tomerson, 1994) Most of these drugs have similar efficacy in alleviating depressive symptoms, difference being in their tolerability and better side effect profile (Slattery et al., 2004).

Although SSRIs are being prescribed with increasing frequency these days, there are other drugs available in the market. The facts to be considered while selecting antidepressants are efficacy, rate of response, tolerability, safety, pharmacodynamic and pharmacokinetic drug interactions, dosing schedule and titration and cost (Cates, 2001). The prescription of antidepressants depends upon a number of factors such as choice of the physician, socioeconomic condition of the country etc. There is disparity in prescription pattern from consultant to consultant and from country to country. There is a wide range of antidepressant medication available in the market with almost equal efficacy. The choice of antidepressant from a given class is therefore guided mostly by the preference of the psychiatrist (Pies, 1998; Aronson et al., 2000; Kando et al., 1999). There is limited data on the trends of antidepressant medication from India. Therefore, the present study was carried out to assess the prescription pattern of antidepressants in the department of psychiatry, C.S.M. Medical University, U.P., Lucknow (formerly King George's Medical University Lucknow).

METHOD

Study design and population

The study was conducted following a standardized protocol. A total of 100 patients attending adult psychiatry OPD for the treatment of depression were observed for their prescription pattern of antidepressants. Those patients who fulfilled the diagnostic criterion for depression of the International classification of disease, 10th revision (ICD-10) (WHO, 1992), were selected. The first five patients who were diagnosed as suffering from depression (with or without psychotic symptoms) and attending psychiatric OPD for follow-up visit were included in the study from 20 consecutive OPD of various consultant psychiatrists. Data collection study begins from 23rd July 2009.

A written informed consent in the local language (Hindi) was obtained from the patient or the legally acceptable representative (LAR). Survey method was adopted to conduct the study. Data regarding age, gender, antidepressant and other psychotropic drugs prescribed, combination of antidepressants etc. were collected. Medications other than psycho tropics were not included in data analysis. Presented data is in percentage and 95% confidence limits in parentheses. No software was used for data analysis as this study is narrative in nature.

RESULTS

Prescription of 100 patients was studied. Of these 100 patients, 03 were up to the age of 20 years, 18 patients were between 21 - 30 years of age, 30 patients were from 31 - 40 years of age, 29 of them from 41 - 50 age group, 16 patients belonged to the 51 - 60 age group and 04 patients came from 61 - 70 age group. Out of 100 patients, 67 were male and 33 were female. Study subjects aged 40.85 $\pm$ 11.41. It was observed that 83 patients were prescribed a single antidepressant, 16 were prescribed a combination of two antidepressants and a single patient was prescribed combination of three antidepressants. Duloxetine turned out to be the most frequently prescribed antidepressant and Escitalopram ranked second in the hierarchy of prescriptions. Mirtazapine Venlafaxine, were prescribed to 18 patients each. Sertraline and Primiprazole were given to 10 patients each. Paroxetine was the least frequently prescribed antidepressant. It was found that 84% (C.I.76.82 - 91.86%) patients were co-prescribed Clonazepam with an antidepressant(s), followed by 73 patients with Lorazepam and 46 patients with Nitrazepam.

The highest number of patients was prescribed Duloxetine with Clonazepam. Escitalopram was the second highest antidepressant prescribed with Clonazepam. A significant number of patients receiving Clonazepam were co-prescribed Venlafaxine followed by Mirtazapine.

It was found from the study that 19 patients were prescribed anti-psychotics, 24 patients were prescribed Propranolol and 01 patient received an Anticholinergic along with antidepressants. Olanzapine was co-prescribed for 15 patients, followed by 03 patients with Risperidone and one patient was given a combination of both the aforementioned drugs along with Amitryptiline150 mg/day and Pramipexole 0.25 mg/day.

Out of 15 patients on olanzapine, 7 patients were also on Duloxetine and 5 of them were on Venlafaxine. Most patients received Duloxetine in the dose of 60 mg/day. Escitalopram was prescribed in dose regimen of 20 mg/day to 16 patients. Venlafaxine was prescribed most frequently in dose of 300 mg/day to 16 patients. Amongst the patients who were prescribed Sertraline, most of them received it in dose of 100 mg/day.

DISCUSSION

In a tertiary care psychiatric centre of North India, it was found that treatment help seeking tendency was higher in depressed males as compared to their female counterparts, probably owing to economic constraints. Depression seems to afflict the economically productive age group of 31 - 50 years and Duloxetine appears to be drug of choice over other available antidepressants, probably due to the fact that it causes quicker remission, majority of patients attending our OPD were moderate to severely depressed and had probably had ineffective trials of other antidepressants prior to coming to our OPDs. This study also reconfirms the fact that anxiety symptoms are highly co morbid with depression and frequently require a medication to relieve it (in this study, clonazepam was co-prescribed to 84% of patients). Similar findings were observed by other investigators as

well (Mohanta, Manavalan, Prabha, Prasanna, 2008; Timothy, Hylan, William, Crown et al., 1999).

Conclusion

Use of SSRIs was found in majority of patients. This is similar to the antidepressants prescription pattern being practiced worldwide. Studying the prescription patterns help the mental health professionals in understanding how the available drugs can be best put to use practically and this study too was a step in that direction.

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REFERENCES

Anderson IM, Tomerson BM (1994). The efficacy of selective serotonin re-uptake inhibitors in depression: a meta-analysis of studies against tricyclic antidepressants. J. Psychopharmacol., 8: 238-49.

Aronson SC and Ayres VE (2000). Depression: a treatment algorithm for the family physician, Hospital Physician July, pp. 21-44.

Depression guideline panel (1993b). Depression in primary care volume 2. Treatment of major depression. Rockville, MD : U.S. Dept. of Health and Human services, U.S. Public Health Service, Agency for Health care Policy and Research, April, AHCPR publication no.93-0551. clinical practice guideline no 5.

Eisenberg (1992). Treating Depressionn and anxiety in primary care. Closing the gap between knowledge and practice. N Engl. J. Med., 326: 1080-84.

Francesca Venturini, Jennifer CY Sung, Michael B Nichol, Joanne C Sellner (1999). Utilization Patterns of Antidepressant Medications in a Patient Population Served by a Primary Care Medical Group. J Managed Care Pharm., pp. 243-49.

Mohanta G, Manavalan R, Prabha K, Prasanna M (2008). Retrospective utilization patterns of antidepressant medications. Internet J. Third World Med., 7: 1.

Kando JC, Wells BG, Hayes PE (1999). “Depressive disorders,” in Pharmacotherapy: A Pathophysiologic Approach, 4th ed., (edit., DipiroJT, Talbert RL, Yee GC, Matzke GR, Wells BG and Posey LM), Appleton and Lange, Stamford CT: pp. 1141-1160.

Katon W, Von Korff m, Lin E (1992). Adequacy and duration of antidepressant treatment in primary care. Med. care, 30: 67-76.

Katzelnick DJ, Kobak DA, Jefferson JW (1996). Prescribing patterns of antidepression medication for depression in HMO. Formulary, 31: 374.

Marshall Cates (2001). Selecting Antidepressant therapy for patients with major depression, Am. J. Pharmaceu. Educ 65: 89-112.

Olfson M, Marcus SC, Pincus HA, Zito JM, Thompson JW, Zarin DS (1998). Antidepressant prescribing practices of outpatient psychiatrists, Arch Gen psychiatry, 55: 310-316.

Pal Pacher, Valeria Kecskemeti (2004). Trends in the Development of New Antidepressants. Is there a light at the End of the Tunnel? Curr. Med. Chem. 11(7): 925-943.

Pies RW (1998). Handbook of Essential Psychopharmacology, American Psychiatric Press, Inc, Washington DC :1-112.

Robert Jean Campbell (2004). Campbell’s Psychiatric Dictionary (Eighteenth Edition), Oxford University Press, 44.

Rudorfer MV, Manji HK, Potter WZ (1994). Comparative tolerability profiles of the newer Vs older antidepressants drug sat, 10: 18-46.

Slattery DA, Hudson AL, Nutt DJ (2004). Invited Review: The Evolution of Antidepressant Mechanisms. Fundamental Clin. Pharmacol., 18(1): 1-21

Timothy R Hylan, William H Crown, Laurie Meneades, John H Heiligenstein, Catherine A Melfi, Thomas W Croghan, Don P Buesching (1999). A Multivariate Analysis: SSRI Antidepressant Drug Use Patterns in the Naturalistic Setting: Lippincott Williams and Wilkins.

World Health Organization (1992). International Statistical Classification of Diseases and Related Health Problems, 10th Rev World Health Organization, Geneva.