



A RANDOMIZED DOUBLE BLIND COMPARISON OF CITALOPRAM VS ESCITALOPRAM IN SEVERE DEPRESSION

KEYWORDS

Depression , ssri's , citalopram, escitalopram

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ABSTRACT

The purpose of this study is to compare the efficacy of citalopram with escitalopram in the management of depression. The diagnosis was done based on ICD-10 Criteria for severe depressive episode and a minimum score of 19 in Hamilton depression rating scale. The primary efficacy outcome was taken as change of mean HAM-D 17 score from baseline to end of study. At the end of study responders in the citalopram group were more compared to escitalopram group and the difference was statistically significant.

INTRODUCTION

The purpose of this study is to know whether citalopram or escitalopram is more effective in severe depression. Basically both citalopram and escitalopram are selective serotonin reuptake inhibitors [SSRIS] . Citalopram is produced as a racemate ,it means it is a racemic mixture of S & R enantiomers.

S enantiomer is the actual ssri in this racemic mixture. The purest form of S enantiomer is extracted as Escitalopram.[1] Both these drugs are FDA approved for depression ,and both escitalopram and citalopram have no significant drug –drug interactions , due to their low potentiality in inhibiting CYP 450 isoenzymes. [2] while most of the studies say escitalopram is superior to citalopram in depression [3,4,5,6,7,8], few studies say that both are equally efficacious [9,10,11,12,13].

Pharmacodynamically it is proposed that R-citalopram in citalopram inhibits the effect of the S-enantiomer. The lower efficacy of citalopram in these studies [3,4,5,6,7,8] is apparently due to the inhibition of the effect of the S-enantiomer by the R-enantiomer, possibly via an allosteric interaction with the serotonin transporter .The R-enantiomer present in citalopram counteracts the activity of the S-enantiomer, thereby providing a possible basis for the pharmacological and clinical differences observed between citalopram and escitalopram. [14]

But clinically many psychiatrists share their view that in severe depressive episode citalopram is more Effective. This study is an attempt to explore this clinical judgement.

MATERIALS AND METHODS

This study was conducted in a psychiatry outpatient clinic between jan .2016 to dec.2016. written informed consent was obtained from all patients included in the study.

First episode depressive patients satisfying ICD-10 criteria for severe depressive episode, with a minimum score of 19 in HAM-D were selected. Both male and female patients in the age group of 18 to 58 were selected. A total of 120 patients , were randomly allocated to E [ESCITALOPRAM] And C [CITALOPRAM] groups on a 1:1 basis, 60 Patients in each group.

INCLUSION CRITERIA

First episode depressive patients of both sexes in the age group of 18 to 58 who satisfied ICD -10 Criteria for severe depressive episode were included in the study.

EXCLUSION CRITERIA

Patients with psychotic symptoms, substance abuse , secondary depression, comorbid psychiatric illness, pregnant women and those with severe suicidal risk were excluded from the study.

Patients were started on either citalopram or escitalopram randomly on a 1:1 basis.

Dosage for patients in citalopram group was started on 20 mg and titrated to a maximum dose of 40mg within two weeks as per clinical requirements. Dosage for patients in escitalopram group was started on 10 mg and titrated to a maximum dose of 20 mg within two weeks wherever necessary.

Patients with sleep disturbance were given sedatives whenever necessary.

After six weeks of double blind treatment both group of patients were reassessed using HAM-D.

Response rate was defined as 50% decrease from baseline HAM-D score. [15,16]

There were three dropouts in the citalopram group and four dropouts in the escitalopram Group. So in all 57 patients were in citalopram group and 56 patients in escitalopram group.

RESULTS AND DISCUSSION

Of the 120 patients involved in the study there were 7 dropouts. 3 from the Citalopram group and (Table -1) 4 from the Escitalopram group (Table-2)

TABLE - 1

Drop outs due to adverse events	Citalopram group
Somnolence	1
Constipation	1
Drymouth	1
TOTAL	3

TABLE - 2

Drop outs due to adverse events	Escitalopram group
Headache	1
Insomnia	1
Vomiting	1
Gastritis	1
TOTAL	4

TABLE - 3

Demographic characteristics	Citalopram Group	Escitalopram Group
Gender		
Male	28	29
Female	29	27
Marital Status		
Married	36	35
Un married	13	15

Separated / divorced	08	6
Education		
Literate	44	45
Illiterate	13	11
HAM – D Total means core at base line	26.91±3.89	27.75±3.72
HAM-D score after 6 weeks of treatment	13.91±2.86	15.78±5.22

Demographic details of both groups were comparable Table -3. The base line HAM-D mean score in Citalopram group was 26.91±3.89 , and in Escitalopram group 27.75±3.72. After 6 weeks of treatment the mean HAM-D total score in the citalopram group decreased from 26.91±3.89 to 13.91±2.86 and in the escitalopram group mean HAM-D score decreased from 27.75±3.72 to 15.78±5.27. Both of which are statistically significant (p<0.001). (Table -3)

TABLE - 4
Citalopram group

Total persons	Responders	Percentage
57	39	68.42%

TABLE - 5
Escitalopram group

Total persons	Responders	Percentage
56	33	58.92%

TABLE - 6

Responders percentage		P value
Citalopram group	68.42%	P<0.001
Escitalopram group	58.92%	

Out of 57 patient in the citalopram group 39 were responders (Table - 4) out of 56 patient in the Escitalopram group 33 were responders (Table -5) The responders percentage was 68.42% in the citalopram group and 58.92% in the Escitalopram group. The difference was statistically significant. p<0.001. (Table -6)

CONCLUSIONS

In this study the efficacy of citalopram and escitalopram were compared in patients with severe depression. The results show that the responders in the citalopram group were more than those in the escitalopram group and the difference was statistically significant.

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