

Role of flunarizine in treatment of headache in depression - Comparison to antidepressant used as prophylaxis of migraine and Emergence prevention of headache in depression

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Abstract

In our previous study of on depressive patient were shown appearance of pulsatile headache as a most common type of headache mostly located on bilaterally on temporal region and hypothesized that it as an intermediate phenomenon. Depression itself, or may be due to social and cultural variation was identified as a psychiatric suffering that was not recognized as a illness hence thought as iceberg It is well evident that migraine and depression is interchangeable and has bidirectional relationship . Tension band like headache is earliest to be recognized but it remained poorly recognized possibly may be due more pain tolerance, depression itself has social and cultural variation. The drug used in the treatment of migraine and depression is little bit more comprehensible to understand. The use of propranolol and flunarizine has depressant properties in long term. Simultaneously the use of flunarizine with SSRIS warn induction of hyperserotonergic syndrome as FDA black box sign. Author has discrete opinion on use of flunarizine in treatment of headache in depression The area of interest with contradictory reports on use of flunarizine..We try to find out role of flunarizine in preventing appearance of depression and transformation of tension band headache, throbbing headache into migraine and finally into depression.

Key Words: depression, flunarizine , bi- directional relationship , hyperserotonergic syndrome. SSRI, migraine

Introduction

Flunarizine is effective in treatment as well as prophylactic in management of migraine. It is equally effective as pizotifen and long term use as cinnarizine in vertigo . Some of the interesting findings related to its use are its effectively in induction of neo- vascularisation in cerebrovascular as well as peripheral vascular disease and improvement in cognitive function , but it never been compared to methylsergide . [1] The use of flunarizine is not free from side effect as other drugs . Since it is a calcium channel inhibitor and anti-dopaminergic effect, it appears with side of antineuroleptic drugs frequently with movement disorder , depression and drowsiness .[2 -3]

Clinical resemblance of chronic pain may variable etiologies. In case of traumatic brain injury will have highest onset of pain syndrome i.e. chronic headache [5]. Migraine and depression study has strong advocacy on bidirectional relationship of migraine, migraine predicting pre onset depression and depression predicting pre onset migraine. Chronic pain may have highest association with depression [6]. The explanation for their bidirectional relationship have common shared pathway. [7, 8] same relationship were found with panic disorder (9<. Other psychiatry condition may also found with migraine and chronic headache Panic disorder may be one of them [12] Others are various anxiety disorder such OCD and anxiety (10). Suppressed anger and anger trait may also be seen in depression associated with headache [13]. There are strong relationship between tension headache and several psychologic factors are found but the exact role and influence on evolution of headache is not known . migraine is more often seen with anxiety and depression [14]. The author

also emphasized depression and various pattern of headache and how it affects daily living in indian subjects . He also expressed the out come with bidirectional relationship and protulate hypothesis which ways the treatment of headache in depression and learnt the methodology of treatment with rational use of flunarizine and antidepressant especially SSRI . The clinical use of the antidepressant signifies the relationship between headache and depression. Reduction of headache, pain reduces the depression which needs to further clarify. [11] The clinical use of migraine prophylaxis of flunarizine and SSRI Based on precedence to answer when and why use them in mono therapy or may be combination of both .

Aims and objectives- To evaluate role of flunarizine in treatment of depression and its ability to prevent or transform migraine into depression
Tools – HAMD rating scale and headache format of questionnaires

Method –screened and selected patients who scored more than 9 on HAM-D scale and has complaints of headache irrespective of headache characters into three designed groups on the basis of three questions - which comes first headache or depression or unable to recall .Put them into three groups and treat them with flunarizine , sertraline and combination of both respectively for four weeks .The test applied to measure score of depression on Halminton depression rating scale and headache on arbitrarily design format for assessment of headache on three domains such as 1) headache itself , 2) severity of headache and 3) duration of headache in yes /no format .The two consecutive scores were taken one at time of visit as base line and another at the end of treatment at 4th week . The obtained data were analyzed and compared among groups and to other groups also

Group –A contains no of patients who answered depression came first and headache later to depression were treated with sertaline 50 mg /day at bed time

Group – B contains no of patients who answered headache came first and depression later to headache were treated with flunarizine 10 mg /day

in morning in day hr.

Group –C contains no of patients who answered unable to tell which came first
Were treated with sertaline 50 mg / day plus flunarizine 10 mg /day 12 hr apart.

Observation-

Group	Group a	Group b	Group c	Group a vs b	Group a vs c	Group b vs c
N	21	12	3	-	-	-
Age mean	33.904	31.5	40	-	-	-
Age s dev	9.449	9.496	5	-	-	-
Male	9	2	0	-	-	-
Female	12	10	3	-	-	-
Religion	Hindu=19 Muslim=2	Hindu=8 Muslim=4	Hindu=2 Muslim=1	-	-	-
Social class	Middle	Middle	Middle	-	-	-
Hamd score before treatment mean	22.76	20.82	23	-	-	-
Hamd score after treatment mean	5.50	5.55	6	-	-	-
Sdev of hamd score before treatment	4.96	5.53	3.29	-	-	-
Sdev of hamd score after treatment	2.16	2.49	1.41	-	-	-
Sem before treatment	1.108	1.60	3.06	-	-	-
Sem after treatment	0.48	0.89	1	-	-	--
Cd	19	15	17	0.0500	0.5000	0.4500
Ci	85	85	85	95	85	95
Se of difference of mean	1.137	1.878	4.014	0.922	1.334	1.882
T	15.4440	7.9868	4.2353	0.0542	0.378	0.2391
P	<00.0001 es	<0.0001 es	0.0241 s	0.9571 ns	0.7114 ns	0.8148 ns
Response in headache y score "n"	3	3	3	No difference	No difference	No difference

Results

Total selected patient who scored more than 9 on HAM-D scale and complaints of headache were 58 in number out which 22 were dropped and rest 36 were continued in study till completion of 4 week . At start of study there were measured on HAM-D scale and headache assessment format at the end of treatment same were applied and in addition looked for treatment response of headache on three questions 1) remission of headache i 2) remission of severity of headache 3) remission of duration and frequency of headache.

Group A had 21 patients of mean age of 33.904 sd= 9.449. Among them 9 were male , 12 were female , 19 were Hindu and 2 were Muslim HAMD Score mean before and after treatment with SD of 22.76 SD=4.96 and 5.50 SD= 2.16, SEM before treatment = 1.108 . SEM after treatment =0.48 , CD = 19 ,CI=85% SE of difference of mean= 1.137 , t test score = 15.444 , P <0.0001 ES (extremely significant) headache response 3 y at the end of treatment .

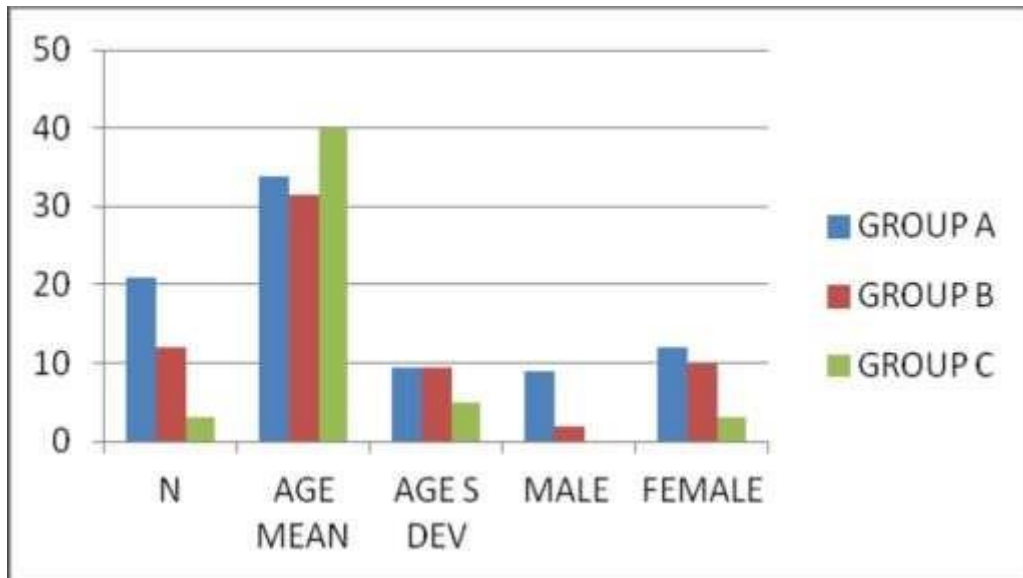


Figure -1: Socio demography

Group B had 12 patients of mean age of 31.5 04 SD= 9.496. Among them 2 were male 10 were female , 8 were Hindu and 4 were Muslim HAMD Score mean before and after treatment with SD of 20.82 sd=5.53 and 5.55 SD =2.49, SEM before treatment = 1.60 SEM after treatment =0.89 , CD = 15 ,CI=85% SE of difference of mean= 1.876 , t test score = 7.8968 , P <0.0001 ES (extremely significant) headache response 3y at the end of treatment.

Group C had 3 patients of mean age of 40 sd= 5. Among them there were no male 3 were female , 2 were Hindu and 1 were Muslim HAMD Score mean before and after treatment with SD of 23 SD=3.29 and 6 SD= 1.41, SEM before treatment = 3.06 , SEM after treatment =1 , CD = 17 ,CI=85% , SE of difference of mean =4014 , t test score = 4.2353, P =0.241 S (significant) headache response 3y at the end of treatment.

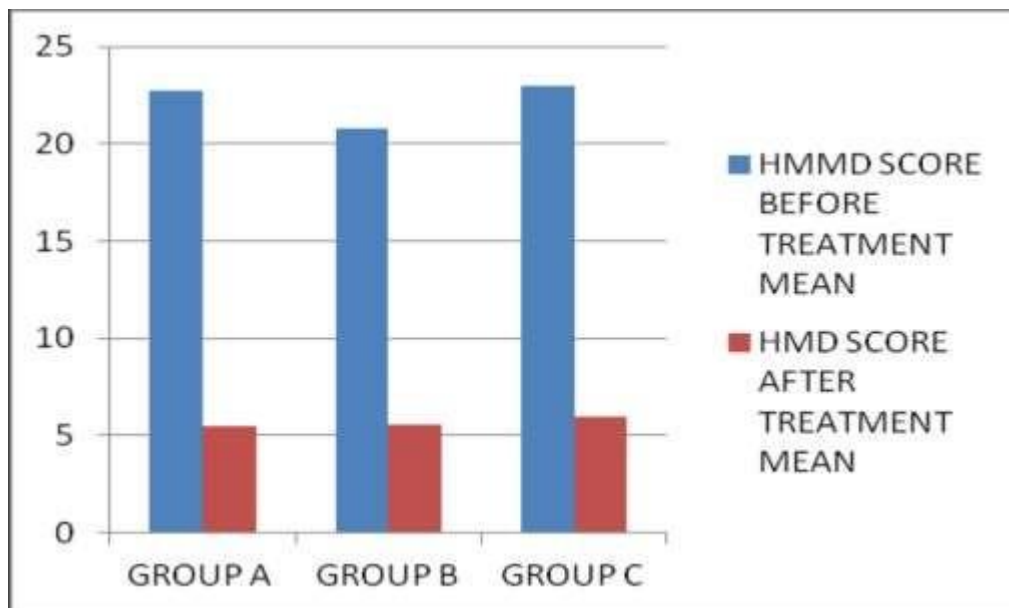


Figure -2: treatment response in group before and after treatment

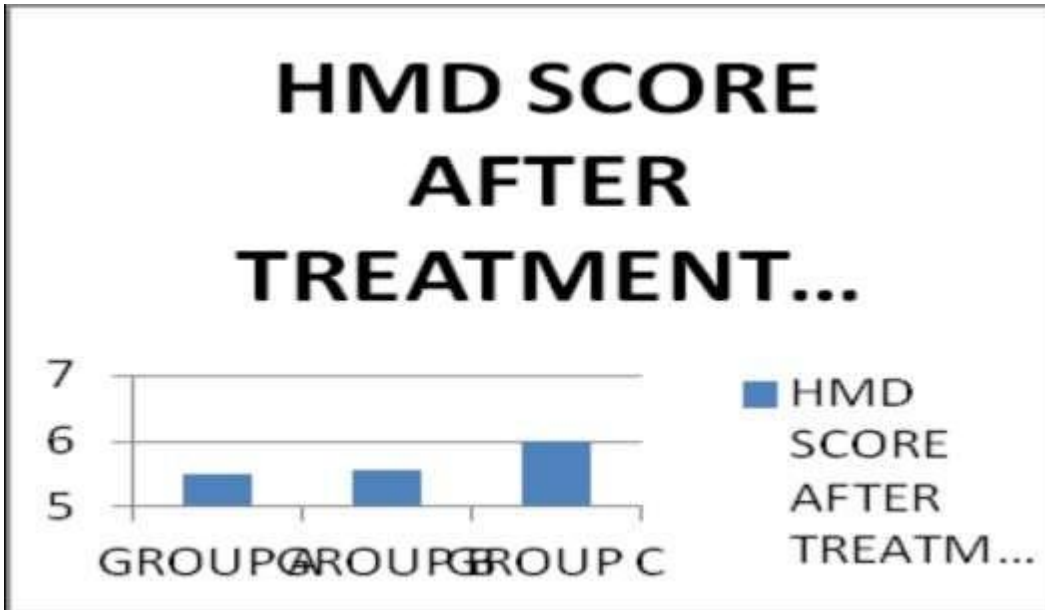


Figure -3: HAMD score in all group after treatment

Comparison between GROUP A and GROUP B

CD = 0.0500, CI=95%, SE of difference of mean = 0.922, t test score = 0.0542, P =0.9571 NS (NOT significant) headache response had no difference in treatment response

Comparison between Group A and Group C

CD = 0.0500, CI=85%, SE of difference of mean = 1.334, t test score = 0.378, P =0.7114 NS (NOT significant) headache response had no difference in treatment response

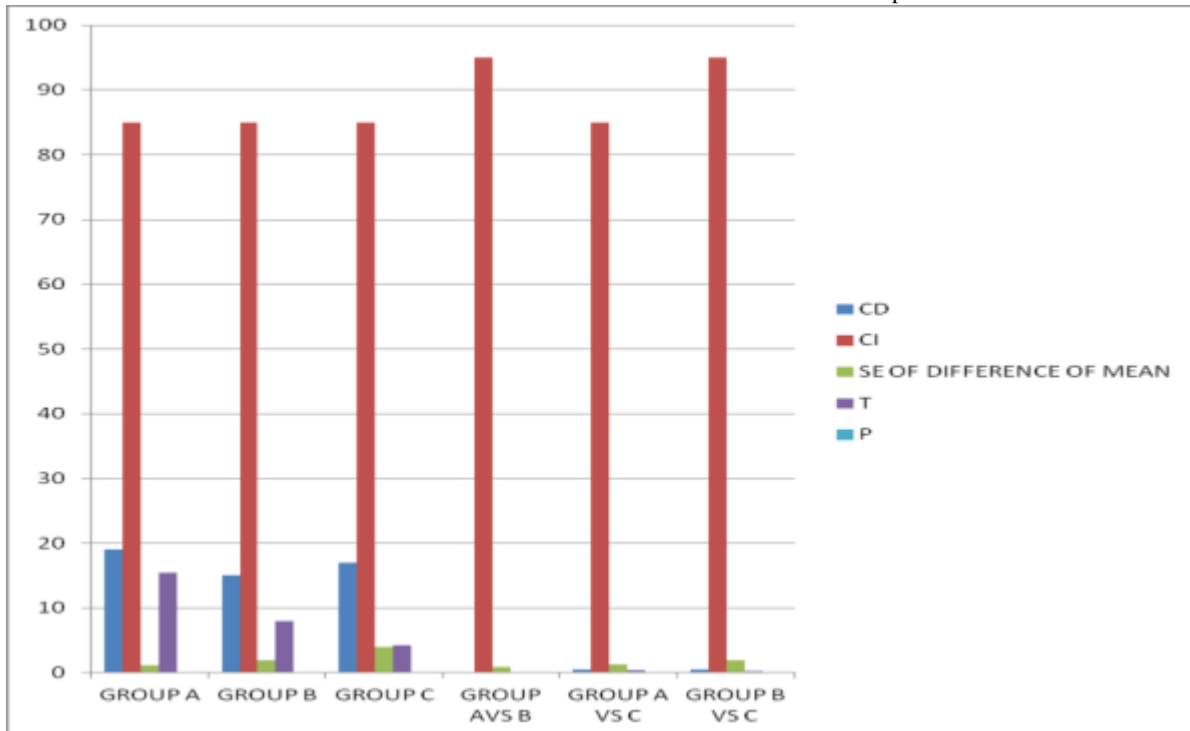


Figure -4: graph representing change statistical parameter of treatment response

Comparison between GROUP B and GROUP C

CD = 0.4500 ,CI=95% , SE of difference of mean=1.882 , t test score = 0.2391 , P =0.8148 NS (NOT significant) headache response had no difference in treatment response

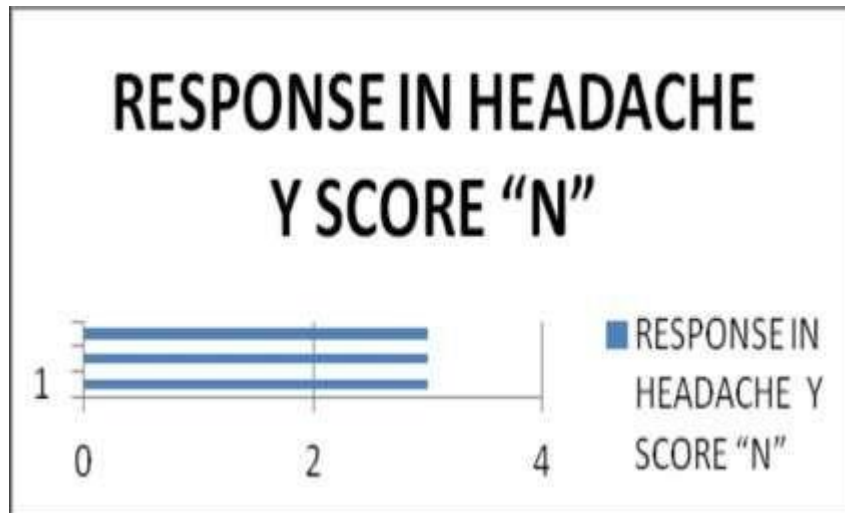


Figure -5: represent headache response of treatment in Y/N format

Discussion

Flunarizine has adverse effect of depression and movement disorder in elderly population and other group (1-4) inspire of that the common sharing nature of migraine and depression and its bidirectional relationship is the basis of treatment benefit with flunarizine (5-15). The treated group of 12 patients who had noticed emergence of headache before depressive symptoms had shown improvement of depressive symptoms as well as headache as extremely significant. Similarly those had depressive symptom preceding to somatic headache symptoms treated with sertraline also had the same results $p < 0.0001$. The treatment response among all three group[s] had equal response of no significant differences.

Conclusion

Flunarizine can act as antidepressant in specific disease condition where headache and depression co exist and headache preceded depression. Sertraline alone can be used in treatment of depression and headache? Migraine. Those who fails to tell which occurs first can be benefited by combination of these two. It also proves the bidirectional relationship of migraine and depression. The significance of the question which occurs first headache or depression or unable to tell will design on the basis of existing problem facilitate immunotherapy and cost effective.

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