Efficacy and Tolerability of Flunarizine in Migraine Prophylaxis

F MEHBOOB
Department of Medicine, King Edward Medical College, Lahore.
Correspondence to Dr. Fatima Mehboob, Assistant Professor Medicine

The objective of this study is to find out the efficacy and tolerability of Flunarizine for prophylaxis in migraine patients. It is a study of 20 patients suffering from migraine attending medical outpatient department of Mayo Hospital, Lahore. Outpatient Department of Mayo Hospital receives patients from Lahore and adjoining areas. Twenty patients of migraine were selected in a period of three months. They were followed up for one year. Flunarize can be a good choice for migraine prophylaxis.
Key words: Migraine, prophylaxis, Flunarizine

Migraine or hemicrania is an old disease. It affects both sexes, runs in families and affects people belonging to all social groups. The age of the onset is around puberty and it continues till middle age and sometimes afterwards also. The attacks are precipitated by diets like bananas, chocolates and red wine. Lack of sleep, over exertion, week ends, reading in dim or flickering light or prolong travel can precipitate the attack. The attacks increase in premenstrual period or at time of excitement or due to anxiety. The pain varies from mild to severe and at times it can be so severe that it forces the patient to leave the routine work and take rest. The pain may not be responding to usual analgesics. The pain may continue for many hours causing a lot of disturbance of working schedule. The feeling of ill health continues for many hours or days.

Migraine is not a fatal disease. It is not a serious illness but the patient is always in fear that the attack may disrupt their routine activity or it can make them unable to meet their social obligations or the attack can decrease their efficiency and quality of work. So in such cases migraine prophylaxis should be considered.

Material and method

It is an open label study, conducted in medical outpatient department of Mayo Hospital, Lahore. Twenty patients of migraine were selected in a period of three months. They were followed up monthly for one year. The diagnosis was clinical.

Inclusion criteria

1. Attack rate was more than three per month.
2. A single episode lasted for more than four hours.
3. The pain was not responsive to simple analgesics.
4. The pain is so severe that it affects the patient's routine activity.
5. The side effects of simple analgesics were intolerable for the patient.
6. The patient had not used any prophylactic medicines previously.

Exclusion criteria

1. Pregnant females were not included in the study.
2. The patients using some other drugs concomitantly were excluded.
3. The patients with significant medical, psychiatric or neurological illness were not included.

Cap. Flunarizine 5mg, two capsules one hour before going to bed were given. If the patient complained of drowsiness, the dose was decreased to 5mg daily one hour before going to bed.

Results & observations

Twenty patients were included in the study.

Table 1.Sex distribution

Sex	n=	%age
Female	12	60
Male	8	40
Total	20	100

Table 2. Age group of patients

Age in years	Female		Male	
	n=	%age	n=	%age
01-10	1	5	0	0
11-20	7	35	3	15
21-30	4	20	3	15
31-45	0	0	2	10

The youngest patient – a girl, was 8 years old while the oldest patient who was a male patient was 45 years old.

Table 3. Duration of pain

Hours	n=	%age
4-8 hours	12	60
9-12 hours	5	25
More than 12 hours	3	15

Table 4. Frequency of attacks

No. of attacks	n=	%age
3 attacks per month	14	70
4 attacks per month	5	25
More than 4 attacks per month	1	5

In two patients drowsiness was so marked that they could not continue the drug. The patients with mild drowsiness, the drug was continued and they felt better with the passage of time. In three patients with mild, drowsiness, the drug was reduced to 5mg daily and the patients responded well.

The improvement was not immediate and it took about 10-15 days for the drug to be effective. The

improvement was gradual.

Table 5. Response of the patients

Response	n=	%age
Frequency of attacks decreased but severity remained the same	1	5
Frequency remained the same but severity decreased	1	5
Frequency and severity both decreased	15	75
The patient could not continue the drug due to side effects	2	10
Lost in follow up	1	5

The major side effects noted in this study were drowsiness, heaviness of head, lethargy and constipation.

Table 5. Major side effects

Side effects	n=	%age
Drowsiness	9	47.36
Heaviness of head	2	10.52
Lethargy	2	10.52
Constipation	1	5.26
No significant side effect	5	26.31
Total	19	99.97

Table 6. Improvement pattern

Period	n=	%age
After one month	2	11.76
After two months	10	58.80
After three months	5	29.44
Total	17	100

The treatment was stopped at this period i.e., after three months and the patients were followed up monthly for one year for relapses and recurrence.

Table 7. Relapse rate occurrence of first attack after stoppage of drug

Period	n=	%age
After one month	1	5.88
After 2 months	1	5.88
After 3 months	6	35.29
After 4 months	4	23.52
After 5 months	2	11.76
After 6 month	3	17.64
Total	17	99.97

The patients with frequent relapses were given Cap. Flunarize 10mg one hour before bed time for a period of 15 days more. At the end of one year all the patients were evaluated.

Table 8. After one year response pattern

Response	n=	%age
Complete response	15	88.24
Partial response	2	11.76
Total	17	100

Discussion

Migraine is a common but poorly understood neurological syndrome. Not much research work is done on this subject, may be due to lack of animal models or lack of objective response[7]. As the disease is causing much discomfort and the patient may be psychologically upset due to fear of it, prophylactic therapy should be given. Different groups of medications have been used for this purpose e.g., ergotamine preparations, beta blockers, serotonin antagonists, calcium channel blockers, tricyclic antidepressants, mono amine oxidase inhibitors, phenytoin, carbamazepine and triptants[1,2,6,8]. These drugs may be contraindicated or unacceptable to individual patients for one reason or the other[9].

The role of calcium channel blockers for migrain prophylaxis is well established[3,4,5]. Flunarizine which is a weak calcium channel blocker is the most tried drug in this group[7].

Chemically Flunarizine is (E)-1-/b is (4-fluorophenyl) methyl/-4-(3-phenyl-2 propenyl) piperazine dihydrochloride with a molecular weight of 477.42. Its half-life is 18 days and it is well absorbed orally.

In the present study we concluded that it can be safely used for migraine prophylaxis.

References

1. Albers GW, Simon LT, Hamik A, Percoutka SJ. Nifedine versus propranolol for the initial prophylaxis of migraine. Headache 1989; 29: 215-18.
2. Couch JR, Hassonein RS. Amitriptyline in migraine prophylaxis. Arch Neurology 1979; 36: 695-699.
3. Couch JR Jr. Placebo effect and clinical trials in migraine therapy. Neuro-epidemiology 1987; 6: 178-185.
4. Current Treatment and Research: Headache quarterly Suppl I 1996.
5. Ferrori MD. Migraine – Lancet 1998; 351: 1043-51.
6. McArthur JC, Marck, Pestront A, McArthur J, Peroutka SJ. Nifedipine in the prophylaxis of classic migraine. Neurology 1989; 39: 384-86.
7. Migraine prophylaxis: Goodman and Gillman: The pharmacological Basis of therapeutics. Nineth Edition: 498-99.
8. Ninan T, Mathew MD et al. Migraine prophylaxis with Divalproex. Arch Neurology March 1995; 52: 281-86.
9. Richard Peat field. Head ache and facial pain. Medicine 2002; 004: 5-10.