



DRUG PRESCRIPTION OF MIGRAINE MANAGEMENT

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ABSTRACT **Introduction :** Migraine, a common neurological disorder characterised by throbbing pain or pulsating sensation usually on one side of the head. Common symptoms that occur during the episode includes visual disturbance, nausea and photophobia.] Migraine may progress with four stages like prodrome, aura, headache and post –drome. Migraine became the fourth leading cause to visit the emergency department and accounting to 3.1 % of all emergency visits from 2009-2010. Therefore, the present study was carried to identify the rational use of drugs in management and prevention of acute and chronic migraine.

Objectives: The aim of the study is the drug prescription pattern of migraine management

Materials and method: The present study is a prospective, cross sectional and observational study carried in the outpatient Department of Neurology in collaboration with the department of neurology.it is a prospective study.

Result: About 624 patients who attended the outpatient department of Neurology with proper inclusion criteria were included as subjects for the study. Out of 624 patients, 336 were female and 288 were male patients. Average age of female patients was 37 years, male patients was 39 years and average age of the population attending the outpatient department of Neurology was 44 years.

Discussion and Conclusion: the commonest complaint which with patients come to OPD with headache. the study with female population of 53% and male is 57%. The most common precipitants in this study were travel (78.02%), tension, hunger/ skipped meal/ fasting, insomnia, depression etc. Triptans are consider as first line therapy of moderate to severe attack or mild to moderate attack. The drug flunarizine is most used drug for patients for almost 224. because of its less side effects and easily available calcium channel blocker. Migraine is commonly increasing now a days, people affected are more likely to be male. The medications that are mostly prescribed are NSIAD'S and flunarizine because of its easier availability.

KEYWORDS : Migraine, NSAID's, Neurology Department

INTRODUCTION:

Migraine, a common neurological disorder characterised by throbbing pain or pulsating sensation usually on one side of the head. Common symptoms that occur during the episode includes visual disturbance, nausea and photophobia.^[1] The persistence of severe pain during migraine can be for hours to days affecting personal life, social life and also increases the economical burden of the patients.^[2] Migraine may progress with four stages like prodrome, aura, headache and post –drome.^[3] The various triggering factor for migraine may include stress, dehydration, food, overuse of medication and physical activity.^[4] A review by World Health Organisation on global data identified migraine to be one of the most common health problems to be prevalent worldwide. It is also been ranked as the third common disease in the world.^[5] In India, around 4.13% of the population is been affected with headache and a recent survey on 1-year prevalence rate of primary headache was found to be 62%. In southern states around 25% were affected with migraines headache. Female patients aged more than 21 years were most frequently affected with migraine.^[6] Not only in India but in other parts of the world like, in U.S population predominantly female patients were affected with migraine than the male patients. Migraine became the fourth leading cause to visit the emergency department and accounting to 3.1 % of all emergency visits from 2009-2010.^[7] Drugs used for migraine includes : triptans, analgesics, antiemetics, betablockers, antivertigo, gastro prokinetics, anti-epileptic.^[8] Even the preventive medications were used in migraine to reduce the frequency, duration and severity of the attack. In U.S, the practice of using preventive medication for migraine was found to be increased from 8.5% to 16% in the year of 2010 alone. Prescription patterns on various diseases helps in identifying the rational use of drugs and for acquire effective drug therapy. According to WHO(1985),the rational use of drugs is “ Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community”,^[9] The consequence of irrational use of drugs leads to drug tolerance and increases the economic burden on national health system.^[10] A report by WHO in the year 2010 shows nearly 50% of the drugs are used irrationally. WHO prescribing indicators includes: average number and types of prescribed drugs, percentage of antimicrobial drugs, and percentage of drugs prescribed by generic name and from essential drug list. In spite of higher occurrence rate and complications due to severe migraine in the patients, there is a lack of adequate clinical importance in management and prevention. Therefore, the present study was carried to identify the rational use of drugs in management and prevention of acute and chronic migraine.

METHODOLOGY:

The present study is a prospective, cross sectional and observational study carried in the outpatient Department of Neurology in collaboration with the Department of Pharmacology. The study was carried for a period of 6 months (July 2018-January 2019). The study was initiated only after obtaining approval from the Institutional Ethics Committee .Patients who attends the outpatient department of Neurology with the symptoms of migraine were properly diagnosed and were included in the study. Only verbal consent was obtained from the patients and the details of the prescription were noted. All the information was included in the Performa. The demographic profile of the patients (age, gender), type, Aetiology of headache, drug data (name of the drug, group, mono or poly therapy, number of drugs per prescription, formulations) were recorded.

Exclusion criteria: Patients with secondary headache

May be due to neurological disorders(neurodegenerative conditions, epilepsy)May be due to stress, anxiety or depression Undiagnosed headache or due to any abuse disorder.

RESULTS:

About 624 patients who attended the outpatient department of Neurology with proper inclusion criteria were included as subjects for the study. Out of 624 patients, 336 were female and 288 were male patients. Average age of female patients was 37 years, male patients was 39 years and average age of the population attending the outpatient department of Neurology was 44 years.

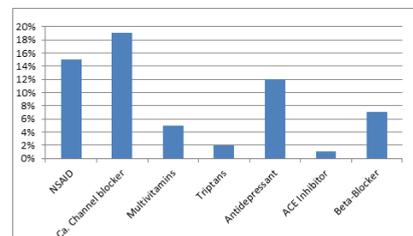


Figure 1: Commonly Used Drug Groups in Migraine

Table 1 : Medications prescribed for Migraine

Drugs used	No of times drugs prescribed
Diclofenac	132

Amitriptyline	192
Flunarizine	224
Propranolol	12
Zincovit	84
Ibuprofen	60
Zolmitriptan	60
Almotriptan	12
Venlafaxine	24

WHO Prescription Indicators:

S. No	Prescription Indicators	Percentage
1	Average number of drugs per encounter	2
2	Percentage of drugs prescribed by generic name	48
3	Percentage of encounters with an antibiotic	4
4	Percentage of drugs prescribed as injections	44
5	Percentage of drugs prescribed from Essential drug list	54

DISCUSSION:

the commonest complaint which with patients come to OPD with headache. the study with female population of 53%.^[11] Trigger factors are important for migraine as these may be helpful as indicators to treat the cause & severity of migraine attack. The most common precipitants in this study were travel (78.02%), tension, hunger/ skipped meal/ fasting, insomnia, depression etc.^[12] Some interesting but unrelated stress factors also were observed during our study period such as fish, vegetables, fast foods etc and changing weather (even taking a bath). Certain other factors associated with migraine include frequent & more television, strong light, computers. and the patients with migraine are also have vomiting, nausea and neck stiffness.^[13] the avoidance of trigger factors is very important in migraine management. In our study, for acute attack the CA blockers were widely used more frequent and the NSIAD'S were second mostly used drugs for the migraine patients.^[14] Followed by anti-depressants, beta blockers and multivitamins. According to the who criteria for drug indicators, the average no of drugs per encounter is 2. Percentage of drug described by generic name is 48%.^[15] And percentage of drug prescribed by injection is 44%. Percentage of drugs used by antibiotic is 40%. And the percentage of drugs described from essential drug list is 54%. The NSIAD'S are used for acute attack. NSIAD'S are widely used because of its easy availability and less cost. Triptans are consider as first line therapy of moderate to severe attack or mild to moderate attack.^[16] The use of triptans such as almotriptan, amitriptyline, zolmitriptan. And injection diclofenac is used for 132 patients. The NSIAD'S have few side effects like nausea, vomiting, and GI side effects.^[17] The drug flunarizine is most used drug for patients for almost 224. because of its less side effects and easily available calcium channel blocker.^[18]

Study limitations:

This project was done by second year medical student with a short period of 6 months. and if this has done for a year the results will be more accurate.

CONCLUSION:

Migraine is commonly increasing now a days, people affected are more likely to be male. the medications that are mostly prescribed are NSIAD'S and flunarizine because of its easier and the injection diclofenac has been second most widely prescribed drug for patients in our study.

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