

Evaluation of Triggers, Management and Patient Compliance in Migraine

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Abstract- Objectives: The aim of the study was to evaluate the triggers which triggered the migraine attack, management of the migraine and patient compliance towards treatment.

Methodology: An observational cross sectional study was conducted for two months in different hospitals of Lahore. A detailed questionnaire was designed and filled by the 100 patients during face to face interview. Collected data was analyzed by statistical method and results was tabulated and represented in the form of tables and graphs.

Results: Female patients were found to be more affected as 83% of the females and 17% of males were affected by migraine. Most affected population i.e. 50% fall in age ranges of 20-30 years. Frequently observed triggers were stress (35%) and food (32%) while others were affected by noise and light too (15%, 15%) respectively. Mostly prescribed medicines in migraine were triptans (44%) NSAID's (35%) beta blockers (13%) calcium channel blockers (8%).70% of migraine patients were non-compliant towards their therapy, because of the side effects of medicines. Life style changes also helped in managing migraine attacks.46% patients had family history of migraine. The patients who consulted pharmacist for their therapy were only 3%.

Conclusion: Incessant to therapy, life styles changes like exercise, yoga, sleep patterns and by taking preventive measures like take meals at regular intervals and by reducing stress, migraine can be managed efficiently.

Index Terms- neurological disorder, triggers, management, Prevention, compliance.

1. INTRODUCTION

Migraine is a very complex condition accompanied by the variety of symptoms and is a common, multifactorial, disabling, recurrent, hereditary neurovascular headache disorder. For some people it is only a pain usually in the temporal region but most of the people complain about many symptoms associated with the pain. These symptoms include the sensitivity of light, sound, fragrances, smell and the feeling of sick, nausea and vomiting. Migraine attacks can be very severe and frightening that one can get relief only after lying for several hours without disturbance. It can affect the people of all age groups with a variety of diverse symptoms. It is different from the common headaches and has many types that differ from person to person. It is very difficult to distinguish between these different types of headaches. The patient with migraine may also sometime experience other types of headaches depending upon the condition and situation. [1]

With the progression of science it is now believed that genetically migraine is induced by imbalance of certain chemicals such as serotonin in brain through which pain travel towards brain or by changes in trigeminal nerve pathway(5th cranial nerve).[2]

Migraine is the third most prevalent illness in the world, yet the researchers are still in a struggle to determine the exact mechanism that how and why migraines occur. Depending upon the complexity triggers of migraine varies from person to person and intense headache is triggered by number of factors including stress, noise, exertion certain medications or food. [3]

Among the dietary items the most common triggers reported by the patients and addressed by the health care providers are chocolate, coca, caffeine, alcoholic beverages, fatty foods and cheese. Such dietary precipitants in isolation are sufficient to trigger an attack. [4]

Other factors includes sleep (changes in sleep pattern) hormonal (estrogen level changes and fluctuation) environmental (bright lights, odor, pollution, and weather) and visual disturbances. Fruits (papayas,overripe bananas,) vegetables (raw garlic, olives, pickles, onions, snow peas,)bread and grains(freshly bakes yeast bread, doughnuts)meat, fish (canned, processed meat) and desserts (chocolate ice cream, pudding, cookies, cakes).These are the most common triggers that are usually supposed to be the cause of migraine. [5]

Management of the migraine begins with prevention. This includes diagnosis and avoiding the underlying triggers of migraine, however, migraine headaches can be managed by various methods that may include life style changes and therapies. While the choice for an individual patients depends on the severity of the attacks,associated symptoms such as nausea and vomiting and patients

treatment response. Various options are available to stop migraine attacks: acute medications or symptomatic treatment (Pain relieving), Preventive medications, Alternative or non Pharmacological Treatments. [6,7]

Analgesic and anti-nauseatic are the prime choice for the treatment of mild or moderate migraine pains and non-specific treatments these include paracetamol (acetaminophen), ibuprofen and aspirin.[8]

Second class of drug used in treatment of migraine is triptans. Commonly used triptans are sumatriptans, zolmitriptan and almotriptan. Combination of sumatriptan and naproxen sodium has proved more efficacious in terminating migraine than using triptans individually. Favorable benefits of triptans are obtained when they are taken at the beginning of headache, while pain intensity is mild or moderate. However, they are not useful during the aura phase. Ergots are the other group of drug which are used in migraine treatment. Ergotamine are considered effective and appropriate for the treatment of migraine in almost all guidelines. Dihydroergotamine more efficacious and has lesser side effects than ergotamine. Ergotamine are cost effective and also less effective than triptans.[7,9]

Some guidelines recommend a stepwise treatment of migraine in which initially acute attacks are treated with the safest, least expensive therapies and migraine-specific medication is only used if the initial treatment fails. While other guidelines recommend a stratified approach which is based on severity of illness. Basically this approach recommends migraine specific drugs for severe attacks though these two strategies are equivalent but stratified care result in better clinical outcome than step wise care. Pharmacists can also assist migraine patient to understand the use of non-pharmacological and supportive therapies e.g. providing information regarding foods and medication which may potentiate the migraine and other behavioral factors which include proper sleep patterns and stress reduction. [10]

2. MATERIALS AND METHODS

An observational and cross sectional study was conducted at different private and public sectors hospitals of Lahore Pakistan. The duration of study was 2 months and 100 patients of migraine were selected by random sampling technique. A detailed questionnaire was designed related to the evaluation of triggers, management and patient compliance in migraine. The questionnaire was filled by face to face interview with patients both male and female and the collected data was then analyzed statistically and results were shown in form of tables and graphs.

3. RESULTS

After conducting survey, on the evaluation of triggers, management and patient compliance in migraine, it was found that the age range which is most likely to be affected by migraine is 20-30 years [Figure 1]. Majority of the triggers that mostly affect the patient were stress (35%) and food (32%) [Figure 2]. In relation to management and treatment, it was found that mostly prescribed medicines were triptans (44%) and NSAID's (35%) [Figure 3]. Frequently used approach for treating migraine were abortive (49%). preventive (34%) and the rest were using the alternating therapies [Figure 4]. However, patient compliance towards treatment was low as 29% only [Figure 5].

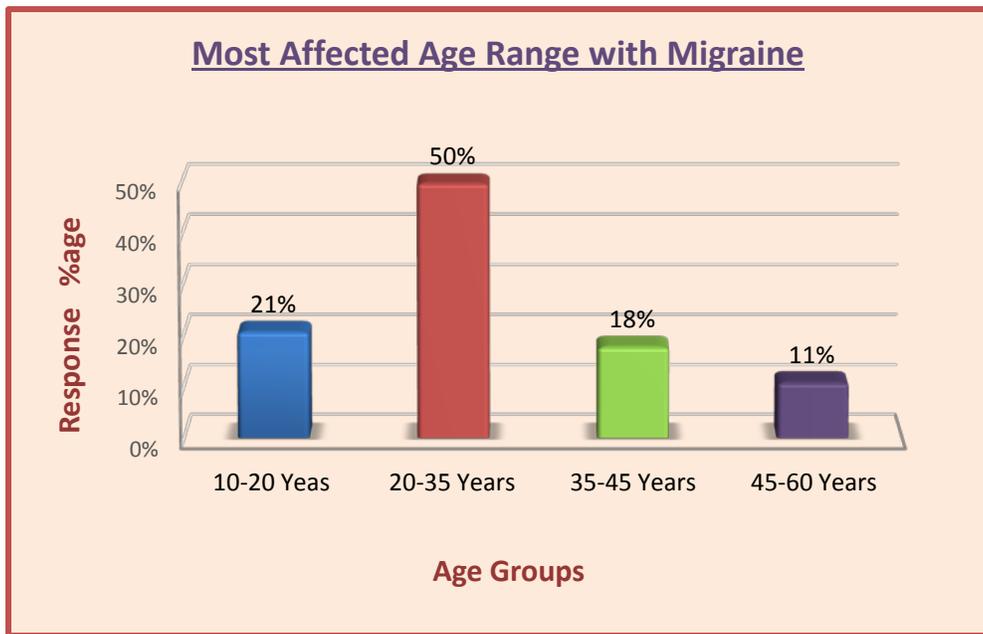


Figure No. 1: Most Affected age range

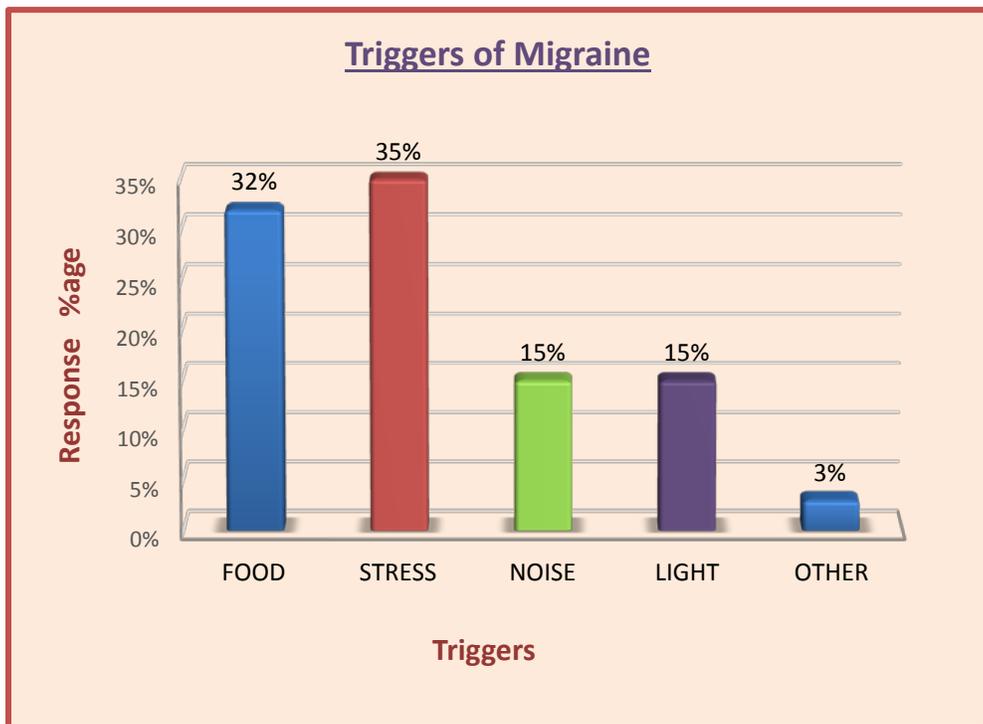


Figure No. 2: Triggers of migraine

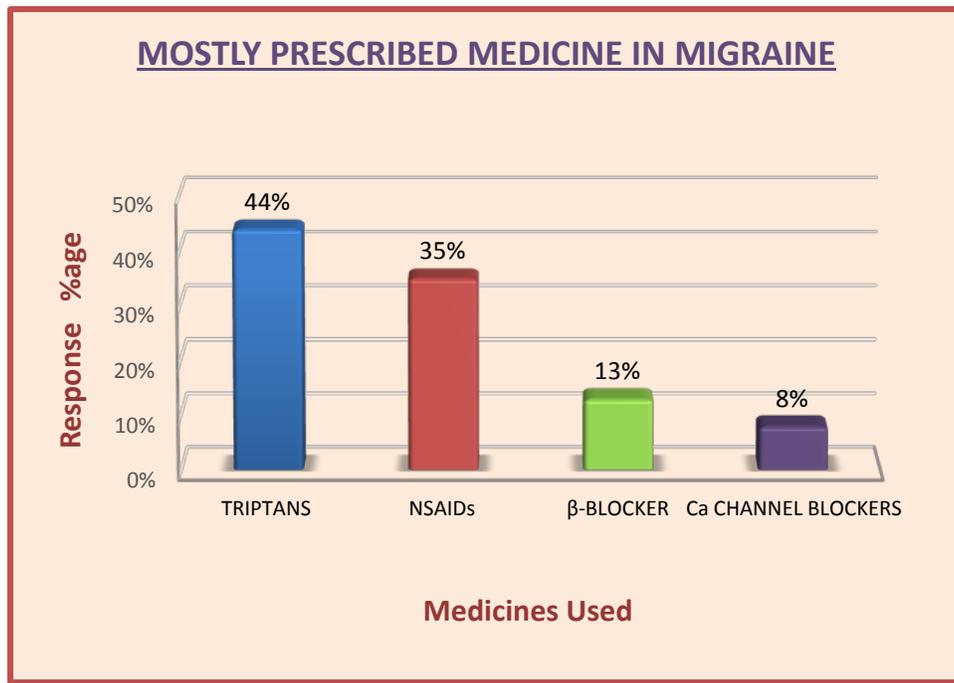


Figure No. 3: Mostly prescribed medications in migraine

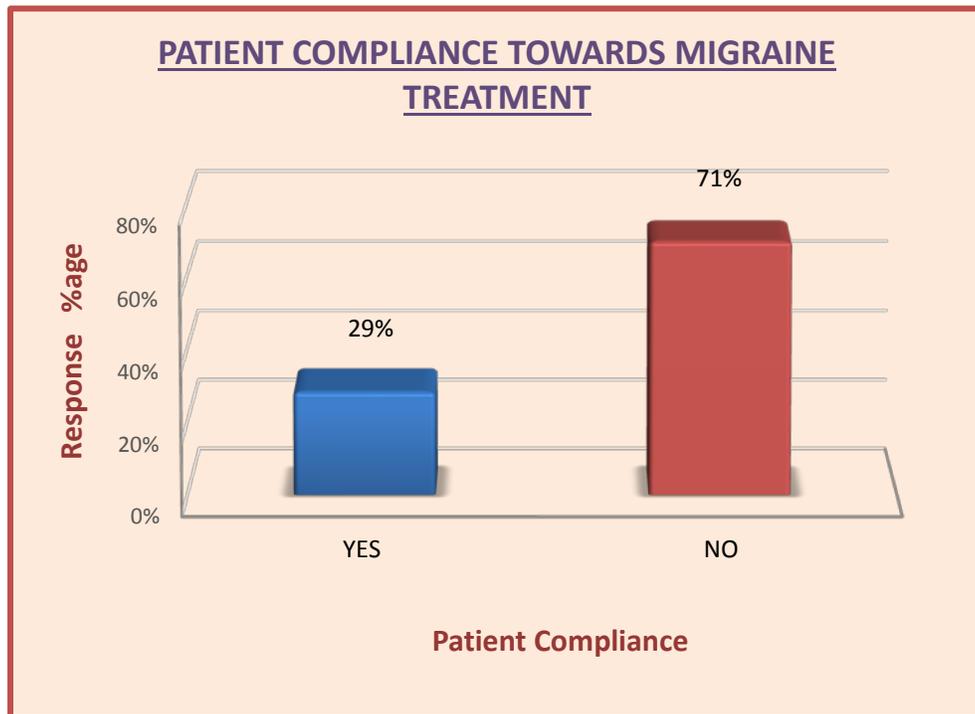


Figure No. 4: Patient compliance towards treatment

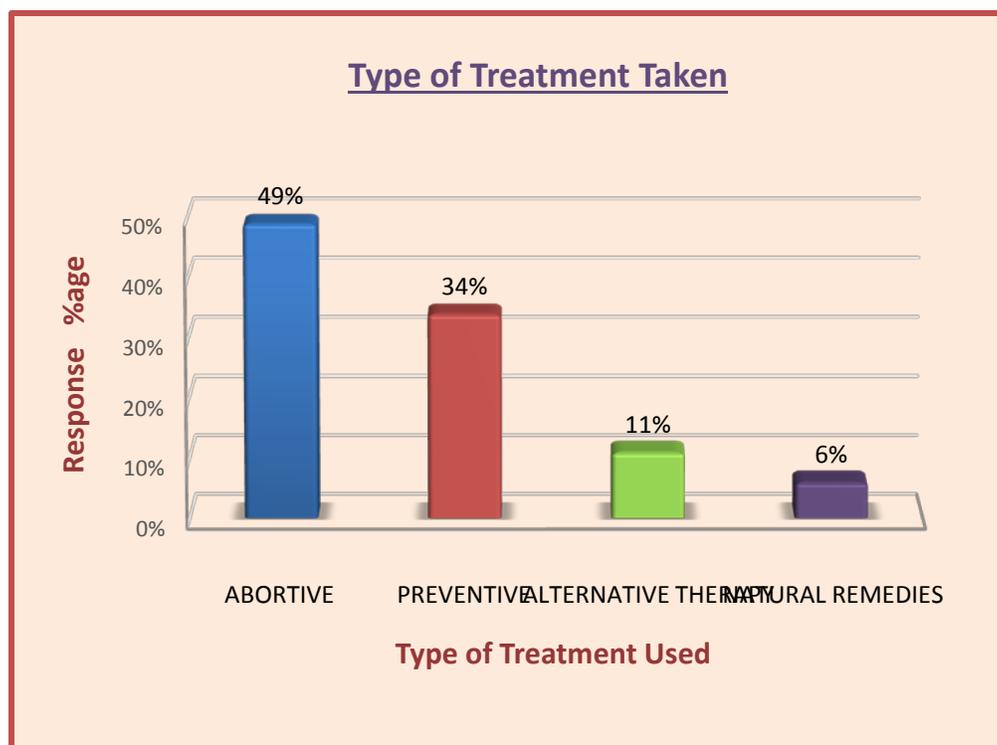


Figure No 5. Type of treatment taken

4. CONCLUSION

Migraine is a neuromuscular disease usually regulated by the flashes of light, sound and fragrances, characterized by the throbbing pain usually at one or both temples or at the back of the head. Frequency of migraine attacks is more common in adult ages. Migraine also follows the trend to run in families. It is usually triggered by environmental factors, food and stress. Although in most of the cases, patients left undiagnosed for a long time, but early diagnosis of the disease can make it treatable. Step care usually follows for the treatment starting with simple analgesics and antiemetic and then step forward to triptans and ergotamine. Pharmacist has the vital role in monitoring the patient's medications therapy regimens.

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