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RESEARCH ARTICLE

INFLUENCE OF LIFE STYLE IN MANAGEMENT OF MIGRAINE.

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Abstract

Migraine is the most common type of vascular headache characterized by repeated attacks of headache, which typically lasts for 4 to 72 hours. Migraine is a leading cause of disability worldwide. It is one of the most common neurological disorders associated with a high socio-economic burden mostly in adult population and shows female predominance.The management of migraine may include non-pharmacological and pharmacological treatment. For the prevention of migraine treatment non-pharmacological therapy is essential. By preventing migraine we can reduce the frequency, duration or severity of attacks. Early and proper diagnosis of migraine is essential and can lead to significant improvements in a patient's quality of life. This article reviews the non pharmacological management of migraine.

Introduction:-

The term 'migraine' is derived from the Greek word 'hemicrania' which was formed by Galen in Approximately 200 AD thus clearly; migraine was well known in the ancient world [1.] Migraine is a very common disorder. An estimated 18% of women and 6% of men experience migraine, but many of them ignore and will not take appropriate treatment [2.] It is extremely important to note, that not only pharmacological but also non-pharmacological procedures are effective in treating people with migraines. Life style modifications are the most important factor for managing migraine. An important element of non-pharmacological procedures is the avoidance of factors inducing seizure, as well as an adequate amount of sleep. In conservative procedures, the beneficial effects of relaxation techniques (progressive muscle relaxation, autogenic relaxation, and meditation), behavioral-cognitive therapy and biofeedback were also essential [3.] Many of the non pharmacologic therapies are based on the theoretic concept that migraine is occuring from neurochemical instability within the brain. William EA. et al has developed guideline for the non pharmacologic management of migraine in clinical settings which includes the application of cold or pressure to the head, reduction of activity and of sensory input in a quiet or dark environment and attempts to sleep and also by the use of pharmacologic therapies when not adequate in isolation [4.]

Non-pharmacological self-management interventions have been promoted as an excellent approach for helping people with chronic conditions[5.]

The pain may start from one side and become generalized, and usually it lasts for hours. The pain will vary from person to person, usually lasts between 4 and 72 hours in adults and 2 and 48 hours in children. The frequency of attacks is extremely variable [6, 7.] For most patients, a combination of non pharmacologic and pharmacologic interventions should be used to control and treat headache disorder. Patients should be warned about the triggering factors of crises; so that they can identify these factors and thereby reduce the frequency of migraine

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episodes.[8]Migraine varies in frequency, duration among peoples and between attacks. It is appropriate to link the intensity of care with the level of disability and symptoms such as nausea and vomiting for the acute treatment of symptoms of an ongoing attack [9].

Patient education
Patient education is very important factor for any treatment plan, find out and discuss the role of trigger factors such as stress and educate the suffers regarding the underlining cause.

Acute nonpharmacologic treatment
The application of cold or pressure to the head has been assessed as valuable. Reduction of activity and be in a quiet dark environment and attempts to sleep are used almost by people with migraine. The triggering factors for migraine are [10-11].

Emotional stress
Changes in behavior
Missing a meal; hypoglycemia
Sleeping more or less than usual

Environmental factors
Bright or flickering light
Loud noise
Weather changes
Strong odours
Allergens

Foods and beverages
Chocolate
Cheese
Cured meats (e.g., hot dogs, bacon)
Caffeine-containing beverages
Alcoholic beverages, especiallyred wine

Chemicals
Aspartame
Monosodium glutamate (MSG,naturalflavour, hydrolysedvegetable protein)
Benzene
Insecticides
Nitrites (as in preserved meats)

Drugs
Atenolol
Caffeine (and caffeine withdrawal)
Cimetidine
Danazol
Diclofenac
H2 receptor blockers
Hydralazine
Indomethacin
Nifedipine
Nitrofurantoin
Nitroglycerin
Oral contraceptives (ethinylestradiol +)
Reserpine

Other, individually recognized :Dietary factors and Aspartam

Behavioral Therapies

Relaxation training

• Temperature biofeedback (for hand warming)

Combined with relaxation training

• Electromyographic (EMG) biofeedback (for muscle tension reduction)

• Cognitive behavior therapy (stress managementTraining).

Relaxation trainingfocuses on helping patients to change headache-related physiological responses, reduce stimulation of the nervous system, and decrease muscular tension. A common training procedure helps patients to achieve a relaxed state through a series of muscle exercises and controlled breathing. Relaxation training gives a patient increased awareness and control of biological changes that can cause headaches [12-14].

And treat headache-related physical responses. Biofeedbackdevices measure and then give"feed back" informationabout the physical response of the patient. EMG

biofeedback can help patients to reducemuscular tension, and hand-warming. Biofeedbackcan help patients to reduce nervous systemarousal[15].

Cognitive behavior therapy or stressmanagement traininghelps patients to identify theirspecific behavioral risk/trigger factors for headache(often including stress, sleep disruption, andskipping meals) and then to develop steps tominimize the impact of their triggers. It also helps torecognize and manage more effectively with headachetriggers and often guide patients to prevent headachesand reduce headache-related disability.

Psychotherapy

It is suggested thatpsychiatric referral of patients with migraine is indicatedonly for the presence of a coexistent psychiatric disorder. However,referral to a psychologist to improve stress managementmay be appropriate in selected cases[13-15].

Hypnosis

Hypnosis may reduce distressing sensory input as itdoes in other pain disorders and may have a placebo effect.It was more effective than prochlorperazine in onerandomized controlled trial, and a meta-analysis oflargely uncontrolled studies also suggested benefit whenhypnosis was combined with CBT[14].

Physical measures

Physiotherapy, osteopathy and chiropractic

Physiotherapy, osteopathy, chiropractic and otherphysical therapies have great importance in migraine treatment. Chiropractic manipulations willreduce migraine frequencyand severity .Aerobic training may reduce thenumber of attacks but not the severity of migraine headaches[15-16].

The value and cost-effectiveness of physiotherapy,osteopathy and chiropractic in the management ofmigraine have not yet been determined. It is thereforeinappropriate for a physician to refer patients forsuch treatments.

Transcutaneous electrical stimulation and acupuncture

Transcutaneous electrical stimulationand acupuncturealso having small series of effect to providesome relief from migraine.Patients who having interest in transcutaneous electricalstimulation and acupuncture should be made aware bout the benefits and cost effectiveness of these treatments in the managementof migraine.

Other measures

Occipital or supraorbital nerve blockade with localanesthetics, sometimes increased by steroids, have also beenconsidered to be effective in the reliefof migraine. Patients with posttraumatic headachemay respond better than other patients.A single trial of orally administered magnesium (asmagnesium dicitrate, 600 mg/d) indicated that it provided useful prophylaxis.For patients getting the massage treatment, the Hernandez et alstudy also showed astatistically significant decrease in somatic symptoms and the pain scale[17]. The Lawler etal study showed an increase in sleep quality. The studies reviewed show statistical support that massage therapy is an effective nonpharmacological treatment for migraine headaches[18].

Physical treatments

Acupuncture is a form of alternative pain treatment originating from Traditional Chinese Medicine (TCM), dating back >3000 years.Acupuncture uses fine needles to pierce the skin to relieve pain, induce anesthesia, and achieve therapeutic goals. Researchers believe that stimulation with the needles in acupuncture will allows pain-killing endorphins to be released into the patient's system thereby relieving pain. Cervical manipulation will directs short or longterm high velocity drives at one or more joints of the cervical spine. Occlusal adjustment is one oftheanother techniquewhich includes dental procedures used to improve a patient's bite, thereby relieving muscle tension in the jaw that might induce or exacerbate migraine pain. Finally, hyperbaric oxygen therapy requires that the patient be placed in a hyperbaric chamber to increase pressurization of the blood gases [12-20].

Vitamins and other supplements

A deficiency in mitochondrial energy reservoirs can cause migraine or even increase homocysteine (amino acid that is produced by the human body). For the catalyzationof homocysteine to occur vitamins have to be present. Examples would be riboflavin (vitamin B2), vitamin B6, B9, B12 and folic acid[20.]If a personis prone to migraines, eating a healthy diet that has a variety of vitamins and minerals is a way to maintain or reduce the pain level of migraine. Migraine associated with menstrual cycle will increases the levels of prostaglandin levels (PG) in the endometrium.Increased levels of PG indicates the role of vitamin E, which is an anti-PG. Vitamins act as an antioxidant and they work effectively in oxidative stress to slow down the diseases progression[20-23.]

Herbal remedies

Butterbur (Petasiteshybridus) plant and the extract from the roots seem to have anti-migraine properties. A review done in two randomized groups showed that members who took 75 mg of Butterbur had a greater decrease in migraine attacks than those who took 50 mg over the course of 3-4 months. No serious adverse effects occurred in the clinical study[22-25] .Ginkgo bilboa tree leaves are also helpful with a combination of other products. Ginkgolide B is extracted from the tree leaves. This extract regulates the action of glutamate in the central nervous system and is a potent inhibitor of the platelet-activating factor.

Conclusion:-

Migraine is common cause of headache, early diagnosis andtreatments of migraine is necessary to enhances the quality of life and prevent the occurrence of repeated migraineattacks.Non-pharmacological treatments of migraine attacks, shows great improvement in patients who are suffering from migraine attacks. Researches about non-pharmacological methods indicates that certain herbs, vitamins, physical treatments as well as massage and acupuncture can help to decrese the pain and discomfort that occurred with migraine attacks. Physicians should give an appropriate knowledge to the patients regarding the non-pharmacological treatment along with the pharmacological treatment. Every patient should make lifestyle changes in migraine to minimize the severity and enhance the quality of life.

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