

Efficacy of Homoeopathic Medicines in Motion Sickness

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Abstract

Background and objectives: Seasickness, airsickness, carsickness, trainsickness, amusement-park-ride sickness, camel sickness, and the like are collectively called motion sickness. The symptoms are apathy, headache, stomach awareness, pallor, perspiration, salivation, nausea, vomiting, and prostration, in roughly that temporal order.

Motion sickness is one of the more humbling experiences of travel, be it on a plain, train, bus, boat or whatever and suddenly turning green, sweaty, becoming nauseated and developing an uncomfortable urge to throw up. Although this condition is fairly common and only a minor nuisance for the occasional traveler, it may be incapacitating for people with an occupation that requires constant movement such as a flight attendant, pilot astronaut or ship crew member. In addition anticipating movement can cause anxiety and symptoms of motion sickness. The incidence varies depending upon the magnitude of the stimulus and the susceptibility of the individual. Even though motion sickness has been mentioned in the homoeopathic literature; a systematic, scientific and a detailed study has not been done. Hence this condition needs to be studied. Quite a number of remedies in Homoeopathic Materia Medica and references from Philosophy books give a ray of hope for Homoeopathic treatment for this common but incapacitating disorder.

In most cases treatment with homoeopathic drugs is therefore necessary and in some cases it is the only method of treatment as conventional treatment cannot offer a cure always. Merely treating Motion sickness on symptomatology basis has failed to give permanent relief. So a holistic approach considering the individualistic treatment to provide an improved understanding of the patient's situation and to make it easier and possible to avoid recurrences in the future has to be kept in mind in treating such diseases.

In this context, we the homoeopaths have some valid conclusions, regarding the holistic and individualistic approach to motion sickness. All these factors have encouraged me to take up this study on the efficacy of homoeopathic medicines in the treatment of motion sickness. The aims and objectives of the study were as follows.

- To know and perceive the efficacy of homoeopathic medicines in the treatment of motion sickness.
- To access the miasmatic background of the condition for enhancing the scope of homoeopathic therapeutics for a permanent cure of the condition taken up for the study.
- Assessment of the role of acute remedies in the treatment of this condition.
- To bring out therapeutics on motion sickness for easy reference in clinical practice.
- To bring out Repertory on motion sickness for easy reference in clinical practice.

The present study consisted 30 patients of Motion sickness who attended the O.P.D. at A.M. Shaikh Homeopathic medical college and Hospital, Belgaum and O.P.D. of village camps. The 30 cases of Motion sickness were selected on the basis of inclusion criteria. Patients who were known cases of Motion sickness and whose symptoms of motion sickness get provoked during traveling and patients of all age groups irrespective of their sex and occupation were taken up for study. After selecting the samples the case taking was done keeping the holistic and individualistic concept in mind to ascertain homoeopathic totality for prescription of similimum.

All the cases were reviewed once in 15 days for the 2 months, after the journey and were told to report the changes, then once in 15 days for the remaining period of study or as per the demand of the case and the progress was recorded. The treatment was based on the basis of homoeopathic principles and auxillary measures were indicated as and when required. In this study it was seen that 27cases i.e.90% showed improvement with Homoeopathic treatment and 3 cases i.e. 10% failed to show any improvement.

An analysis of the results revealed statistically significant efficacy of the Homoeopathic remedies in the treatment of motion sickness. Studying motion sickness with miasmatic background and its treatment with Homoeopathy not only helps in understanding the further progression and worsening of the condition but also reduces the emotional and psychological impact caused due to motion sickness and makes the patient travel with comfort, enjoyment and pleasure and no more embarrassment. The miasmatic background in 86.66% of cases was found to be Psora. Hence, it can be stated that mostly in Motion sickness PSORA is the dominant miasm. Most of the cases have totally responded to a set of drugs Coc-Indicus, Ipecacuanha, Nux vomica, Petroleum, followed by Ars alb ,Graphites, Kali carb, Lycopodium, Nitric acid, Pulsatilla, Sepia, Tabaccum and Tuberculinum .

Motion sickness is an exceedingly common disorder about which Homoeopathic physicians are likely to be consulted for advice and treatment. Appropriate management is based on patient characteristics and the type and length of the exposure and includes general preventive recommendations. Education for patients about the causes of motion sickness and how to prevent it can alleviate anxiety and enhance their enjoyment of travel and recreation. The proper Homoeopathic medicine taken at the right time can increase resistance to motion sickness and assure a pleasant journey in place of a traumatic experience. Hence now most of the motion sickness sufferers need no longer face frustration as Homoeopathy has come for their relief. Thus, the present study has been confirming one keeping the holistic approach as the pedestal of treatment and the role of Homoeopathic remedies has been the most effective. A more comprehensive study comprising of more subjects, different professionals with different modes of travel and spread over a longer duration is needed to follow-up on the results of this study.

Keywords: Motion sickness, Nausea, Vomiting, Giddiness, Vestibular apparatus, Balance disorder, Equilibrium, Excessive sweating and salivation, The sensation of rotation, Vertigo, Dizziness, Car sickness, Train sickness, Air sickness, Otorhinolaryngologist.

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Introduction

Truth is not narrow and restricted, it is road and in its own sphere Universal. It manifests itself in degrees; from an inert superficial presentation to the most profound comprehension. One thing however, is requisite its essential qualities must obtain, or is proportionately defective or even destroyed. So, with the law of Homoeopathy in its sphere it is universal in its acceptance it appears in all shades, from the greatest practice to the most skillful effort of Hahnemann.

HOMOEOPATHY AS A SYSTEM OF MEDICINE

Dr. Samuel Hahnemann a German discovered Homoeopathic method of medical practice in the 18th century. Hahnemann was not satisfied with the prevalent medical practice and wanted to bring about a paradigm shift in the medical philosophy. His visionary idea was to offer to the humanity an epitome of health care that was neither dogmatic nor authoritarian. He proposed a model that would cause least harm to the sick person (§.2, Org of med) and where the health care provider would consider the restoration of health to the sick as his or her only mission (§.1, Org of med) Hahnemann has also described the attributes of the doctor as being unbiased towards the acquisition of knowledge and skills, communication channel with the patient and alters estimation process of diagnosis and prognosis, planning, the therapeutic part etc.

Homoeopathy has a unique place in the medical philosophy. It has an operational orientation that is based on certain nature friendly and common sensical principles. Deriving from the Hippocratic and Paraceltic observation on the nature of action of medicine and the reference made by William Cullen, Hahnemann experimented with the Principle of Similia Similibus Curantur, which means let likes be cured by likes. The essence of this rule is that in order to be able to cure a disease condition a practical medicine must have nature and capacity to produce a similar feature in an apparently healthy person. Though this favors the core concept of homoeopathy the concomitant concepts like the single dose and simple medicine along with the doctrines like vitality theory health disease, dynamisation of medicines, transcending the germs as the cause of disease concept to the realm of miasmatic origins of disease etc, have evolved homoeopathy with a comprehensive health care model.

A noteworthy feature of homoeopathic practice is the emphasis it lays on an unbiased and problem based approach to the entire range of clinical decision-making process. This requires of the homoeopathic practitioner higher cognitive ability to perceive the incidence, interpret their implication, decide on the best possible solution and clarify the outcome.¹

Sea sickness, air sickness, car sickness, train sickness, amusement- park-side sickness, camel sickness, space sickness, motion maladaptation syndrome and the like are collectively called motion sickness. The symptoms are apathy, headache stomach awareness, pallor, perspiration, salivation, nausea, vomiting and prostration roughly in that temporal order. It is caused by repeated unusual movements during traveling. This sends confusing or conflicting nerve signals to the brain from the balance mechanism in the ear. Symptoms can develop on cars, trains, plains, boats, etc. Symptoms typically go when the journey is over but not always. In some people they last a few hours or even days, after the journey ends.²

Motion sickness is one of the more humbling experiences of travel, be it on a plain, train, bus, boat or whatever and suddenly turning green, sweaty, becoming nauseated and developing an uncomfortable urge to throw up.³

Motion sickness has been with us for centuries, infact ever since men; women began moving faster than our maker intended. Julius Caesar suffered while riding around in his chariot. It is due to information overload-too many conflicting signals reaching the brain from the inner ear and eyes.⁴

Although this condition is fairly common and only a minor nuisance for the occasional traveler, it may be incapacitating for people with an occupation that requires constant movement such as a flight attendant, pilot astronaut or ship crew member. In addition anticipating movement can cause anxiety and symptoms of motion sickness. For example a person with a previous experience of motion sickness may become nauseous on an airplane before take-off.

The incidence varies depending upon the magnitude of the stimulus and the susceptibility of the individual. Boat travel is most likely to cause motion sickness followed by travel by air, car and train. While children outgrow motion sickness as their perceptual abilities mature, some people suffer the symptoms throughout their lives.

The principal importance of motion sickness is military. The incidence of motion sickness among trainees for other air crew positions (navigators, gunners) is much higher and also among air borne assault troops. Space scientists believe that motion sickness will have to be reckoned with also if a manned satellite is rotated to provide artificial gravity. Interestingly motion sickness is more common in patients with migraine.

Even though motion sickness has been mentioned in the homoeopathic literature; a systematic, scientific and a detailed study has not been done. Hence this condition needs to be studied.

Quite a number of remedies in Homoeopathic Materia Medica and references from Philosophy books give a ray of hope for Homoeopathic treatment for this common but incapacitating disorder.⁵

In most cases treatment with homoeopathic drugs is therefore necessary and in some cases it is the only method of treatment as conventional treatment cannot offer a cure always. Merely treating Motion sickness on symptomatology basis has failed to give permanent relief. So a holistic approach considering the individualistic treatment to provide an improved understanding of the patient's situation and to make it easier and possible to avoid recurrences in the future has to be kept in mind in treating such diseases.

In this context, we the homoeopaths have some valid conclusions, regarding the holistic and individualistic approach to motion sickness. All these factors have encouraged me to take up this study on the efficacy of homoeopathic medicines in the treatment of motion sickness because it is only through Homoeopathic case taking the set of most distinct, individual symptoms are obtained which are truly characteristic of the patient forming the basis of prescription which eventually leads to cure.. It is hoped that useful information will be gained both on the entity of motion sickness, as well as the homoeopathic approach to its management.

AIMS AND OBJECTIVES

- To know and perceive the efficacy of homoeopathic medicines in the treatment of motion sickness.
- To asses the miasmatic background of the condition for enhancing the scope of homoeopathic therapeutics for a permanent cure of the condition taken up for the study.
- Assessment of the role of acute remedies in the treatment of this condition.
- To bring out therapeutics on motion sickness for easy reference in clinical practice.
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REVIEW OF LITERATURE

Historical background of motion sickness

Nearly all definitions of motion sickness include a partial list of the signs and symptoms along with some description of the initiating stimulus, e.g., "... a condition characterized by pallor, cold sweating, nausea and vomiting that follows upon the perception of certain kinds of real or apparent motion." "Motion sickness is a clinical diagnostic term implying certain criteria have been met to ensure validity. Thus, a close temporal order of exposure to 'motion' generating stressful accelerations and the appearance either of vomiting or some combination of such

cardinal symptoms as nausea, pallor, sweating, increased salivation and drowsiness constitutes, respectively, a pathognomonic or valid diagnosis.” As far back in time as the ancient Greeks, the Father of Medicine, Hippocrates, recognized the relationship between motion stimuli and physiological responses as evidenced in his assertion “....sailing on the sea proves that motion disorders the body.”

Historically, the evolution of theories to explain the etiology of medical disorders begins with postulations targeting the organ system exhibiting the most salient signs and symptoms as the primary site affected by the causal factor. The development of theories concerning the etiology of motion sickness is no exception. Although only a brief description of the assertions of proponents of the major theories is possible here, there are a number of excellent reviews in the literature which offer more detailed historical accounts of motion sickness theories.

Theorists in the 19th century agreed that motion was the causal factor in the malady; however, there was considerable disagreement about which system was most disturbed by motion. Based on the reasoning that the systems capable of independent movement should be the primary sites affected by external motion, the circulatory and gastrointestinal systems were the logical candidates.

Two other classes of theories in this time period worth noting were the Autonomic Nervous System (ANS) theories and the vestibular theories. There was a strong tendency during this time to attribute the symptom origin of a variety of medical problems to the ANS. Hence, theories suggesting motion resulted in a shock or concussion to the central ANS paralyzed the sympathetic nervous system (SNS), or caused peripheral vagus nerve irritation enjoyed some acceptance in the medical and scientific community. The earliest theories providing the foundation for contemporary vestibular etiology theories of motion sickness, however, were largely ignored. Interestingly, the first theoretical contributions outlining the etiological role of the vestibular system in motion sickness were based on sound scientific evidence from neurophysiological studies which established the function of the semicircular canals and otoliths. On the other hand, the more popular nonvestibular theories were based on little more than conjecture and speculation. More contemporary theories that have been proposed to explain the etiology of motion sickness include the sensory conflict theory, and the poison theory.

Sensory-conflict is currently the most widely accepted explanation for the initiation of motion sickness symptoms. The sensory conflict theory of motion sickness advanced by Reason and Brand best explains motion sickness, and is parsimonious. Briefly, the sensory conflict theory of motion sickness assumes that human orientation in three-dimensional space, under normal gravitational conditions, is based on at least four sensory inputs to the central nervous system. The otolith organs provide information about linear accelerations and tilt relative to the gravity

vector; information on angular acceleration is furnished by the semicircular canals; the visual system provides information concerning body orientation with respect to the visual scene; and touch, pressure. And kinesthetic systems supply information about limb and body position. When the environment is altered in such a way that information from the sensory systems is not compatible and does not match previously stored neural patterns, motion sickness may result.

Total reliance on this theory, however, may limit our thinking. Sensory conflict explains everything in general, but little in the specific. Shortcomings of the sensory conflict theory include its lack of predictive power, inability to explain those situations where there is conflict but no sickness, failure to include sensory-motor conflict, but no sickness, failure to include sensory-motor conflict, inability to explain specific mechanisms by which conflict actually gives rise to vomiting, and failure to address the observation that adaptation is not possible without conflict.

Treisman suggested that the purpose of mechanisms underlying motion sickness, from an evolutionary perspective, was not to produce vomiting in response to motion, but to remove poisons from the stomach. He believed that motion was simply an artificial stimulus that activated these mechanisms or, more specifically, that provocative motions act upon mechanisms designed / developed to respond to minimal physiological disturbances produced by absorbed toxins. According to Treisman, neural activity to coordinate inputs from all the sensory systems in order to control limb and eye movements would be disrupted by the central effects of neurotoxins. Therefore, disruption of this activity by unnatural motion is interpreted as an early indication of the absorption of toxins, which then activates a mechanism to produce vomiting. Expanding on this theory Money et al. argue that motion sickness is a poison response, initiated by the vestibular system, with two major phenomena: 1) a stomach emptying response (Primarily parasympathetic control), and 2) a stress response (Primarily sympathetic control). The vestibular system is involved in regulating the ANS, although the precise manner in which it does so is uncertain.

Regardless of which theory one subscribes to, the conditions that provoke motion sickness involve multimodal sensory information, where the information from all the sensory modalities is not in agreement. Exposure to altered or novel sensory conditions can lead to motion sickness, as well as sensorimotor disturbances. The incidence, severity and primary set of symptoms vary with the sensory conditions to which one is exposed. Hence, different labels have been applied to indicate the provocative conditions, e.g., terrestrial, space, simulator sickness, and cyber sickness.⁶

THE ANATOMY OF BALANCE

Dizziness, vertigo, and motion sickness all relate to the sense of balance and equilibrium. Researchers in space and aeronautical medicine call this sense spatial orientation, because it tells

the brain where the body is "in space:" what direction it is pointing, what direction it is moving, and if it is turning or standing still.

Our sense of balance is maintained by a complex interaction of the following parts of the nervous system:

The **inner ears** (also called the labyrinth), which monitor the directions of motion, such as turning, or forward-backward, side-to-side, and up-and-down motions.

The **eyes**, which monitor where the body is in space (i.e. upside down, rightside up, etc.) and also directions of motion.

The **skin pressure receptors** such as in the joints and spine, which tell what part of the body is down and touching the ground.

The **muscle and joint sensory receptors**, which tell what parts of the body are moving.

The **central nervous system** (the brain and spinal cord), which processes all the bits of information from the four other systems to make some coordinated sense out of it all.

Our brain gets information from several sources concerning the type and direction of your movements. The first, and most important, source is the inner ear. The inner ear, also responsible for balance, contains fluid that shifts according to your body's movement, pushing little hairs one way or the other. This lets our brain know about the direction we're moving in. Our brain also receives information from the eyes, skin pressure receptors that tell the brain what parts of the body are on the ground, and muscle and joint receptors that tell the brain which parts of the body are moving. The central nervous system (the brain and the spinal cord) compiles all of this information to create a complete picture of what is happening.

If signals don't make sense together, you may experience motion sickness. For example, say you are reading a book in a car. Your inner ear and skin receptors are telling your brain that you are moving. Your eyes see only the stationary book, and tell your brain that you are not moving. These bits of information don't go together, and the result is the discomfort that you feel and call car sickness.

Symptoms of motion sickness include unease and headaches in mild cases, to nausea, vomiting, excessive sweating and salivation, and dizziness, as well as feelings of anxiety and loss of color in the face in more severe cases.

Atlas of the Body: The Ear

The small cavity between the eardrum and inner ear conducts sound to the inner ear by three tiny bones called the malleus (the hammer), the incus (the anvil), and the stapes (the stirrup). The inner ear contains the cochlea (a coiled structure responsible for hearing), the semicircular canals (concerned with balance), and the vestibule. The vestibule is an oval cavity that contains the

sacculle and utricle, which communicate with the cochlea and semicircular canals. The vestibular nerve passes impulses from the inner ear to the brain and is associated with balance; the cochlear nerve - part of the vestibular nerve - is associated with hearing.⁷

The symptoms of motion sickness and dizziness appear when the central nervous system receives conflicting messages from the other four systems.

For example, suppose you are riding through a storm, and your airplane is being tossed about by air turbulence. But your eyes do not detect all this motion because all you see is the inside of the airplane. Then your brain receives messages that do not match with each other. You might become "air sick."

Or suppose you are sitting in the back seat of a moving car reading a book. Your inner ears and skin receptors will detect the motion of your travel, but your eyes see only the pages of your book. You could become "car sick."

Or, to use a true medical condition as an example, suppose you suffer inner ear damage on only one side from a head injury or an infection. The damaged inner ear does not send the same signals as the healthy ear. This gives conflicting signals to the brain about the sensation of rotation, and you could suffer a sense of spinning, vertigo, and nausea.

Physiology of Balance disorders:

Movement of fluid in the semicircular canals signals the brain about the direction and speed of rotation of the head--for example, whether we are nodding our head up and down or looking from right to left. Each semicircular canal has a bulbed end, or enlarged portion, that contains hair cells. Rotation of the head causes a flow of fluid, which in turn causes displacement of the top portion of the hair cells that are embedded in the jelly-like cupula. Two other organs that are part of the vestibular system are the utricle and sacculle. These are called the otolithic organs and are responsible for detecting linear acceleration, or movement in a straight line. The hair cells of the otolithic organs are blanketed with a jelly-like layer studded with tiny calcium stones called otoconia. When the head is tilted or the body position is changed with respect to gravity, the displacement of the stones causes the hair cells to bend.

The balance system works with the visual and skeletal systems (the muscles and joints and their sensors) to maintain orientation or balance. For example, visual signals are sent to the brain about the body's position in relation to its surroundings. These signals are processed by the brain, and compared to information from the vestibular and the skeletal systems. An example of interaction between the visual and vestibular systems is called the vestibular-ocular reflex. The nystagmus (an involuntary rhythmic eye movement) that occurs when a person is spun around and then suddenly stops is an example of a vestibular-ocular reflex.

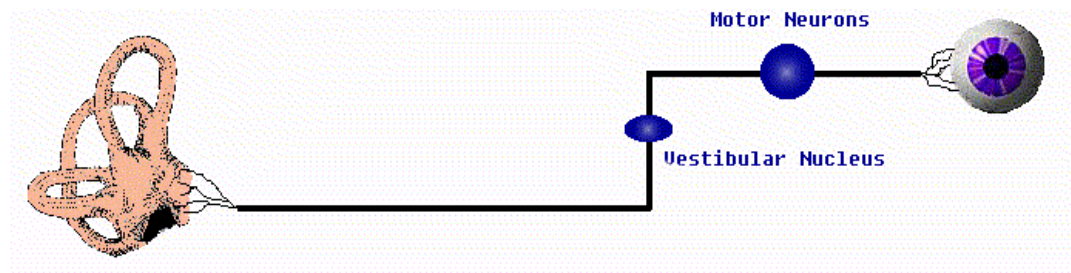


Figure No.2 : Vestibular-Ocular Reflex

Balance Disorders:

What is a Balance disorder?

A balance disorder is a disturbance that causes an individual to feel unsteady, giddy, woozy, or have a sensation of movement, spinning, or floating. An organ in our inner ear, the labyrinth, is an important part of our vestibular (balance) system. The labyrinth interacts with other systems in the body, such as the visual (eyes) and skeletal (bones and joints) systems, to maintain the body's position. These systems, along with the brain and the nervous system, can be the source of balance problems.

Three structures of the labyrinth, the semicircular canals, let us know when we are in a rotary (circular) motion. The semicircular canals, the superior, posterior, and horizontal, are fluid-filled. Motion of the fluid tells us if we are moving. The semicircular canals and the visual and skeletal systems have specific functions that determine an individual's orientation. The vestibule is the region of the inner ear where the semicircular canals converge, close to the cochlea (the hearing organ). The vestibular system works with the visual system to keep objects in focus when the head is moving. Joint and muscle receptors also are important in maintaining balance. The brain receives, interprets, and processes the information from these systems that control our balance.

Basis of Balance disorder

Infections (viral or bacterial), head injury, disorders of blood circulation affecting the inner ear or brain, certain medications, and aging may change our balance system and result in a balance problem. Individuals who have illnesses, brain disorders, or injuries of the visual or skeletal systems, such as eye muscle imbalance and arthritis, may also experience balance difficulties. A conflict of signals to the brain about the sensation of movement can cause motion sickness (for instance, when an individual tries to read while riding in a car). Some symptoms of motion sickness are dizziness, sweating, nausea, vomiting, and generalized discomfort. Balance disorders can be due to problems in any of four areas:

- Peripheral vestibular disorder, a disturbance in the labyrinth.
- Central vestibular disorder, a problem in the brain or its connecting nerves.
- Systemic disorder, a problem of the body other than the head and brain.
- Vascular disorder, or blood flow problems.

What are the symptoms of a Balance disorder?

When balance is impaired, an individual has difficulty maintaining orientation. For example, an individual may experience the "room spinning" and may not be able to walk without staggering, or may not even be able to arise. Some of the symptoms a person with a balance disorder may experience are:

- A sensation of dizziness or vertigo (spinning).
- Falling or a feeling of falling.
- Lightheadedness or feeling woozy.
- Visual blurring.
- Disorientation.

Some individuals may also experience nausea and vomiting, diarrhea, faintness, changes in heart rate and blood pressure, fear, anxiety, or panic. Some reactions to the symptoms are fatigue, depression, and decreased concentration. The symptoms may appear and disappear over short time periods or may last for a longer period of time.

What are some types of Balance Disorders?

Some of the more common balance disorders are:

Benign Paroxysmal Positional Vertigo (BPPV)

Labyrinthitis

Ménière's disease

Vestibular neuronitis

Perilymph fistula

Diagnosis of Balance disorders:

Diagnosis of a balance disorder is complicated because there are many kinds of balance disorders and because other medical conditions--including ear infections, blood pressure changes, and some vision problems--and some medications may contribute to a balance disorder. A person experiencing dizziness should see a physician for an evaluation.

The primary physician may request the opinion of an otorhinolaryngologist to help evaluate a balance problem. Some examples of diagnostic tests the otorhinolaryngologist may request are a hearing examination, blood tests, an electronystagmogram (ENG--a test of the vestibular system), or imaging studies of the head and brain.

The caloric test may be performed as part of the ENG. In this test, each ear is flushed with warm and then cool water, usually one ear at a time; the amount of nystagmus resulting is measured. Weak nystagmus or the absence of nystagmus may indicate an inner ear disorder.

Another test of the vestibular system, posturography, requires the individual to stand on a special platform capable of movement within a controlled visual environment; body sway is recorded in response to movement of the platform and/or the visual environment.

Treatment of Balance disorders:

There are various options for treating balance disorders. One option includes treatment for a disease or disorder that may be contributing to the balance problem, such as ear infection, stroke, or multiple sclerosis.

Another treatment option includes balance retraining exercises (vestibular rehabilitation). The exercises include movements of the head and body specifically developed for the patient. This form of therapy is thought to promote compensation for the disorder. Vestibular retraining programs are administered by professionals with knowledge and understanding of the vestibular system and its relationship with other systems in the body.

What Research is being done for Balance Disorders?

Scientists are working to understand the various balance disorders and the complex interactions between the labyrinth, other balance-sensing organs, and the brain. Scientists are studying eye movement to understand the changes that occur in aging, disease, and injury. Scientists are collecting data about eye movement and posture to improve diagnosis and treatment of balance disorders. Scientists are also studying the effectiveness of certain exercises as a treatment option. Other projects include studies of the genes essential to normal development and function in the vestibular system. Scientists are also studying inherited syndromes of the brain that affect balance and coordination.

The research is on to develop new tests and refine current tests of balance and vestibular function. For example, scientists have developed computer-controlled systems to measure eye movement and body position by stimulating specific parts of the vestibular and nervous systems. Other tests to determine disability, as well as new physical rehabilitation strategies, are under investigation in clinical and research settings.

What Medical Conditions Cause Dizziness?

Circulation disturbances, Injury, Infection, Allergy: Neurological diseases are some of the causes of dizziness.

What problems cause balance disorders?

The cause of a balance disorder may be a well-defined anatomical condition, or simply a psychological reaction to an unpleasant life event. In some situations, the underlying condition is of only minor significance, while at other times it may be life threatening. Unfortunately, finding the cause of a balance problem can at times be frustrating and exhausting. For example, almost any problem in any system of the body can lead to the symptom of dizziness or to a balance disorder.

Our orientation in space and, therefore, our balance or equilibrium, is primarily measured by three sensory systems:

The eye (visual) system

The balance (vestibular) system of the inner ear

The general sensory system including motion, pressure, and position (proprioception) sensors in joints, muscles, and skin.

These three systems continuously feed information to the brainstem and brain about our position in space relative to gravity. The brain, in turn, processes these data and subsequently uses the information to make minute adjustments of our head, body, joints, and eyes. When all three sensory systems and the brain are properly functioning, the final result is a healthy balance system.

By the same token, when the balance system is not functioning, one can usually trace the problem back to a disorder of one of the three sensory systems or the data processor (brain). The problems in each of the following areas correspond to one of these sensory systems or the brain.

Visual

Visual input provides essential clues about our spatial orientation. That is, visual input tells the brain where the body is "in space:" what direction it is pointing, what direction it is moving, and if it is turning or standing still. Also, something as simple as walking a straight line is much easier if we can see our surroundings. Feeling seasick is a problem resulting from a miscommunication between a healthy visual system and a healthy inner ear (vestibular) system. In this circumstance, the ears are telling the brain that there is movement, while the eyes may be seeing the fixed surroundings of the cabin. Simple eye refraction errors, glaucoma, and cataracts are examples of visual problems that in some individuals may be enough to give them a balance disorder.

Inner ear (vestibular)

Just where is the inner ear? Also known as the labyrinth, the inner ear is located deep to the outer ear and middle ear, and is encased within the so-called petrous portion of the temporal bone of the skull.

The vestibular structures of the inner ear are the vestibule (which is made up of the utricle and saccule) and the three semicircular canals. The vestibular system measures linear and rotational movement. A number of disorders can cause this system to stop working or provide inappropriate information. These disorders include Meniere syndrome, labyrinthitis, benign paroxysmal positional vertigo, ear infections, tumors, or trauma. The figure below showing the parts of the ear.

General sensory system

The general sensory system consists of motion, position, and pressure sensors in the skin, muscles, and joints. These sensors provide important touch (tactile) and position information to keep us balanced. For example, if someone pushes you from behind, a slight increase will occur in the activity of the pressure sensors in the ball of the feet. As these sensors note the increased pressure, the brain is notified, and it knows from experience that the body is being pushed forward. The brain then uses this information to tell the body to shift a small amount of weight backward to prevent the body from toppling forward. So, disorders involving the general sensory system can result in balance problems.

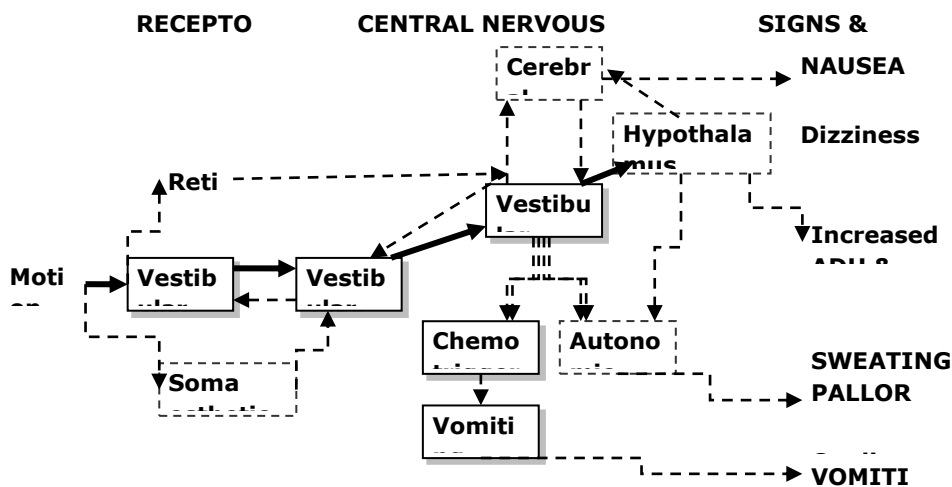
Brain

As mentioned, the brain processes the information from the three sensory systems. Any problem that interferes with the proper functioning of the central nervous system (CNS), therefore, can lead to a balance disorder. Unlike the problems associated with the three sensory input systems discussed above, however, with CNS problems, it is unusual to have vertigo as the only symptom.

Examples of processor problems include brain infections or abscesses, strokes (vascular insufficiency), migraine headaches, brain tumors, head trauma, degeneration syndromes (due, for example, to alcoholism), and multiple sclerosis. Furthermore, any disease that interferes with the proper functioning of the CNS can also cause balance problems. Examples of these diseases include heart conditions (e.g., abnormal heart rhythms or congestive heart failure), anemia, metabolic or hormonal conditions (diabetes, dehydration, or thyroid disorders), and psychological problems, such as anxiety or heavy breathing (hyperventilation).

A common cause of this type of balance problem is insufficient blood flow to the brain. In elderly individuals, there is often narrowing of the blood vessels to the brain (hardening of the arteries or arteriosclerosis) or decreased blood flow from the heart (e.g., with heart failure). In these situations, because of decreased blood flow to the brain, the affected individual will become dizzy when getting up from a sitting or reclining position.^{8 & 9}

STRUCTURES INVOLVED IN MOTION SICKNESS



NEUROPHYSIOLOGICAL ASPECTS

Motion sickness is a common experience for many people. There are many definitions of motion sickness in common usage. It has been defined as a condition involving pallor, sweating, nausea and vomiting in response to a perception of real or apparent motion to which a person is

unfamiliar and hence unadapted. A simpler definition is that it is a normal response to an abnormal environment.

Motion sickness is a common problem, affecting many people and involving almost all forms of transport, including aviation. In a study of college students in the United States, it was found that just over 20% of this general population had taken motion sickness medication at some time .

Motion sickness is a very real problem in flying training. During the Second World War, Rubin reported an overall incidence rate of 11% in trainee pilots, with motion sickness accounting for 52% of failures. A similar study in the United States Navy found that 77% of student naval flight officers (non-pilot aircrew) experienced one or more episodes of motion sickness during their training. An English study found that motion sickness was reported in 38.7% of student pilots at some point during their training. The introduction of more provocative maneuvers into the flying training program was also found to lead to increased rates of motion sickness among populations of student pilots.

Similarly, a United States Navy study found that almost all aircrew exposed to hurricane penetration flights experienced some form of motion sickness, with the extent of symptomatology depending on the level of turbulence. A USAF study found that the typical motion sick individual among rated aircrew in this air force was between 20 and 29 years old with a total flying time less than 1000 hours. Motion sickness is thus an important aviation medicine problem.

The clinical presentation and typical features of motion sickness are very familiar to those who suffer from the syndrome. In general terms, the cardinal symptom of motion sickness is nausea, with the three cardinal signs being pallor, sweating and vomiting. However, the clinical features of the syndrome tend to exhibit a high degree of inter-subject variability, with different people having different presentations. The cardinal symptom and signs described above tend to occur in most people with some degree of predictability. As a consequence of this, scales of severity have been developed in order to quantify the degree of motion sickness present in an individual.

Following exposure to a provocative motion stimulus, the development of signs and symptoms of motion sickness tends to follow an orderly progression. The time scale over which this sequence occurs is determined principally by two main factors: the intensity of the motion stimulus, and the susceptibility of the exposed individual. It is important to note here that with the exception of labyrinthectomised individuals, anyone can be made motion sick with an appropriate level of motion stimulus.

In addition to the cardinal symptom and signs, there are a large number of associated or additional signs and symptoms. It is this latter group that tends to be highly variable in their intensity, time course and frequency of presentation in a given population of motion sick individuals. These associated symptoms and signs include increased salivation, thirst, epigastric discomfort (“stomach awareness”), feeling of bodily warmth, headache, drowsiness, dizziness, apathy, depression, general malaise, loss of motor coordination, hyperventilation and increased somnolence. An endocrinological response to motion sickness has also been described, which is essentially similar to a stress response.

Elevations in serum levels of various hormones have been described, such as cortisol, prolactin, growth hormone, adrenocorticotrophic hormone (ACTH), vasopressin, adrenaline, nor adrenaline and thyroid hormone. Altered physiological parameters have been noted to occur in almost every major system of the body in response to provocative motion stimulus.

Another feature of the motion sickness syndrome that is often reported is the so-called “avalanche phenomenon.” This term is used to describe the rapid cascade of symptoms and signs that occur in some individuals following provocative motion stimuli. After the initial onset of epigastric discomfort, circumoral and facial pallor, cold sweats and nausea then supervene, often concurrently. In conjunction with this avalanche or rapid exacerbation of symptoms, a number of the associated signs and symptoms described above also make a rapid appearance. The culmination of this cascade is emesis, which by this stage is not generally delayed for long.

Vomiting often brings symptomatic relief to the affected individual, but prolonged exposure to the provocative motion can result in continued and repetitive emesis. This can ultimately lead to generalized biochemical disorder, such as dehydration, hypokalaemia and ketosis.

Attempts to explain the aetiology of motion sickness have long focused on the vestibular apparatus. It has been recognised for some time that individuals without a functioning vestibular system do not experience motion sickness. Following the Second World War (in which significant strides were made in motion sickness research) the vestibular system’s role in motion sickness was definitively established. Two major theories then emerged in the post-war period: the vestibular overstimulation theory and the neural mismatch theory. The vestibular overstimulation theory was based on the idea that “excessive stimulation” of the vestibular system by non-physiological accelerations of the head due to motion resulted in sickness. Researchers were unable to observe nystagmus during seasickness, thus leading them to conclude that the semicircular canals were not involved, leaving the otoliths as the likely culprits. One of the major problems with the otolithic super stimulation theory was that it failed to adequately explain some of the well-known and key features of the motion sickness syndrome. One of these is the fact that motion sickness can occur in the absence of any vestibular input, i.e.

when the individual is stationary and it is the visual scene which is generating the illusion of movement. An example of this is simulator sickness. The vestibular overstimulation theory would predict that in such instances motion sickness would not occur, but this is, of course, not the case.

Another problem with this theory is that it does not explain the “mal de débarquement” or protective adaptation phenomenon. Individuals exposed to a continuous provocative stimulus may eventually develop a degree of protective adaptation to the stimulus and their motion sickness will at the very least become less severe, and may even disappear. This is the basis of “getting one’s sea legs.” Once the provocative stimulus to which the person is adapted ceases, motion sickness can recur. In this setting, motion may not even be occurring. The “mal de débarquement” phenomenon occurs when sea-adapted people return to a nonmoving land surface and their symptoms of motion sickness recur. They are not adapted to this lack of motion. The vestibular over stimulation theory is not able to explain this feature of the motion sickness syndrome.

The failure of the vestibular over stimulation theory led to the neural mismatch or sensory conflict theory, which does adequately explain the phenomena discussed above. The conflict between different sensory cues as an explanation for motion sickness has been in existence for more than a century, but it is only in recent years that the definitive neural mismatch theory has become established and widely accepted. The fundamental basis of this theory is that motion sickness is a result of discordant sensory cues. Motion stimuli are transduced by three main sensory receptor systems: the visual system, the vestibular system and the proprioceptive system. If the information presented by these systems to the central integrating areas is in conflict (ie there is a neural mismatch of transduced signals) then the likely result of the integration process is motion sickness. The discordant sensory information acts as an error signal to drive the emesis loop and produce vomiting. The mismatch between neural signals can occur in several different ways. A mismatched signal can be generated by discordant information between the visual system and the vestibular system, or between the otolith organs and the semicircular canals (mismatch within the vestibular system). Visual-vestibular mismatch can occur in several ways. It can occur when both systems provide sensory information that is not correlated, such as when reading a hand-held map during turbulent flight, or looking at a ground target through binoculars. Mismatch can also occur when the visual system is providing information while the vestibular system is not (for example, simulator sickness), and when the vestibular system is providing sensory information while the visual system is not for example, being in an aircraft in-flight with no windows or other outside visual references.

Mismatch within the vestibular system, between the semicircular canals and the otolith organs, can also lead to motion sickness. Cross-coupled stimulation of the vestibular apparatus, in which head movement during rotation about another axis occurs, is a good example of this. Semicircular canal input without corresponding otolith input can also lead to motion sickness (such as space motion sickness), as can otolith input with no corresponding semicircular canal input such as sea sickness due to the low frequency linear vibration of a ship. The mismatch theory thus is able to explain in an elegant way why motion sickness should occur in the absence of vestibular input. The inability to explain this phenomenon was one of the major flaws in the vestibular overstimulation theory, as discussed above.

At the heart of the neural mismatch theory is the concept of an internal model of the motion environment that humans exist in. As a consequence of everyday life, humans build up a model of their motor and postural environment. This internal model is particularly important in the pathogenesis of motion sickness. Not only can motion sickness occur as a result of mismatch between sensory inputs, it can also occur as a result of mismatch between the collective sensory inputs and the internal model. This explains why first exposure to abnormal motion stimuli can often result in motion sickness - the internal model has no experience or memory of the stimulus that is being correctly transduced by the sensory system (with no mismatch), and as a result the central nervous system is faced with a sensory conflict that manifests itself as motion sickness.

The internal model feature of this theory is also able to explain the second major flaw in the vestibular overstimulation theory - the phenomenon of protective adaptation to a provocative motion stimulus. Not only does the mismatch signal drive the sequence of neurohumoral responses that culminates in motion sickness, it also serves as an update signal to the internal model. Exposure to an abnormal or otherwise novel motion stimulus modifies the internal model, so that the next time the motion is experienced, there is less (or no) discord between the sensory input and the internal model. The neurohumoral response to the motion is also modified. The internal model has a memory of that past motion, and compares this past experience with the incoming sensory data to determine if a mismatch exists or not. Once the model has been updated, the potential for neural mismatch becomes much less. With repeated or sustained exposure, the internal model is updated and the neurohumoral response is blunted. The net result is that motion sickness becomes less frequent and less severe. It is theorized that there is a particular neural centre responsible for comparing the data from the internal model and the sensory cues, and it is the net result of this comparative process that produces the mismatch or error signal that triggers the motion sickness syndrome, as well as causing the internal model to be updated. A precise anatomical location for this comparator has not been determined, but it is speculated that it lies somewhere in the cerebellum. This seems plausible, given that the cerebellum is a known centre for integration of motor activity.

What purpose does motion sickness serve?

One postulated answer to this question lies in the theory put forward by Treisman, and supported by experimental work carried out by Money and Cheung. Treisman's theory is that the discordant sensory information is interpreted by the central nervous system as evidence of neurophysiological dysfunction caused by poisoning. The most effective way of dealing with such an event is therefore to initiate vomiting to expel the toxin. Treisman's theory is based on the premise that the orientation systems of the body, which subserve several functions such as postural control, stability of gaze etc., provide early warning of neurotoxicity. As such, the signs and symptoms of motion sickness can be regarded as the overt manifestations of the poison response.

Motion sickness is thus a common problem, particularly in today's technologically advanced world. It is a well-studied syndrome, but there remain significant gaps in our knowledge. It seems likely that the neurophysiological basis of motion sickness is a neural mismatch of sensory signals, which can occur in many combinations and permutations. What is particularly evident is that more research needs to be done before we completely understand the phenomenon of motion sickness. This is especially true given that the rapid pace of technological advances in the 20th century has made our motion environment ever more complex, and that it is almost certainly going to become increasingly so in the next millennium.¹⁰

CLINICAL FEATURES OF MOTION SICKNESS

The development of the motion sickness syndrome typically follows an orderly sequence, the time-scale being determined by the intensity of the provocative motion sickness and susceptibility of the individual. There are, however, considerable individual differences in susceptibility as there are in the incidence and order of occurrence of particular signs and symptoms. The earliest symptom is commonly a sensation of epigastric discomfort. With continued exposure, nausea increases in intensity and the cardinal autonomic signs appear namely pallor and sweating. Vasoconstriction is noticeable in the face, particularly about the mouth, while sudomotor activity is usually confined to those areas of skin where thermal rather than emotive sweating occurs. There is frequently a bodily warmth and the afflicted individual seeks cool air to obtain symptomatic relief. Associated, but more variable, early signs and symptoms are increased salivation, eructation and flatulence, headache, and an ill-defined dizziness. There may be an alteration in the pattern of respiration, with sighing and yawning, which may lead to hyperventilation, particularly in those who are anxious about their disability or their safety in a hostile motion environment.²

ETIOLOGY OF MOTION SICKNESS

In identifying the factors related to the development of motion sickness, vestibular stimulation is the prime suspect. Repeated, prolonged, or otherwise abnormal stimulation of the semicircular ducts, as occurs during testing on a rotating chair or during caloric testing, can certainly induce motion sickness. As already mentioned, Coriolis stimulation of the semicircular ducts is an extremely effective producer of motion sickness. Like wise, abnormal stimulation of the otolith organs, as on a four-pole swing, an elevator, or a heaving ship deck, can result in motion sickness. Human centrifuges, aircraft during aerobatics, life rafts bobbing on the ocean, and ordinary two-pole swings stimulate both the semicircular ducts and the otolith organs; and motion sickness does occur in response to such stimulation. A fact of extreme significance regarding the pathogenesis of motion sickness is that bilateral loss of vestibular organs give the deprived individual complete immunity to motion sickness.

Visual stimulation can also result in motion sickness. People who become sick while watching movies of roller coasters or ships on rough seas or while scanning microscope slides are good examples of the phenomenon of a moving visual environment causing motion sickness without direct vestibular stimulation. In fact, one can become motion sick in the absence of even visually perceived motion: “antigravity” houses in amusement parks (constructed on a slant so that the force of gravity is not perpendicular to the floor) can cause motion sickness in particularly susceptible individuals who enter those structures. It has long been appreciated that when outside visual reference is denied to a person undergoing extraordinary motion, such as is the case with a sailor below deck in a storm, he is more likely to become motion sick than he would be if he could view the horizon.

There are currently three hypotheses concerning the etiology and physiologic mechanisms of motion sickness. The first hypothesis follows from the factors associated with motion sickness that were just discussed. It attributes motion sickness to a conflict between current inputs from the components of the labyrinth, the otolith organs, and the semicircular ducts or between the labyrinth and other sensory systems such as visual or kinesthetic senses. Furthermore, this hypothesis has been extended to suggest that motion sickness can result from a conflict between current input patterns from several sensory systems and those that have been “imprinted” or expected on the basis of one’s past experience. Gillingham formalized the neurophysiologic mechanism for this hypothesis. He suggested that sensory incongruity causes the cerebellum to become overworked attempting resolve the conflicting information. As a result, it produces excessive neurohumor, which stimulates the chemoreceptive trigger zones in the adjacent brainstem. Money however, points out that certain situations that produce no conflict in sensory input (certain shipboard situations) cause a high incidence of motion sickness, where other

experimental situations that produce extremely confusing stimuli (reversing spectacles) cause very little motion sickness.

A second hypothesis called the “overstimulation theory” suggests simply that nonphysiologic excessive stimulation of the labyrinthine receptors produces an excessive response in the vestibular nuclei of the medulla that “spills” over into adjacent neural centers and give rise to the signs and symptoms of motion sickness. This hypothesis is questionable, however, since certain vigorous accelerations, such as those produced by horseback riding, do not produce motion sickness, whereas milder stimuli resulting from camel or elephant riding may produce motion sickness. Finally, an evolutionary hypothesis has been proposed recently. The two hypotheses of motion sickness that have just been discussed imply that this disorder, with its associated signs and symptoms, has no physiologic survival value but simply occurs as a result of unusual vestibular stimulation. Treisman however, proposes that since all animals are either consciously or unconsciously aware of their orientation in space at all time, disequilibrium constitutes a perfect early warning system for life-threatening events such as ingestion of neurotoxins by an unaware or unspecialized feeder. As emetic response to ingestion of neurotoxins would have obvious survival value. Moreover, the unpleasant aspects of other signs of motion sickness (nausea and malaise) could serve as noxious stimuli to prevent future ingestion of greater quantities of substances containing toxins.¹¹

MECHANISM OF MOTION SICKNESS

The results of the slow rotation room studies indicate that competitive neural systems may be involved in motion sickness, one activated by acetylcholine and the other most likely by norepinephrine. There is considerable evidence that the neurons involved in vestibular reactions are mediated by acetylcholine.

The observation that certain sympathomimetic agents are effective antimotion sickness drugs indicates the involvement of a second neural system in motion sickness, one most likely mediated by norepinephrine,. The distribution of norepinephrine in the central nervous system has been shown to be principally in the hypothalamus and the brain stem reticular system. Dopamine is thought to be active in the basal ganglia. The norepinephrine system could be adjacent to the aforementioned acetylcholine system in the reticular system or even intermingled with it. The symptoms of motion sickness include autonomic reactions that could result from activation of a norepinephrine system and a simultaneous activation of a cholinergic reticular area.

The area of the brain stem reticular system adjacent to the vestibular nuclei and the vomiting center are known to be involved with vestibular reflexes. In the proposed mechanisms of motion sickness, exposure to an unusual force environment would cause the vestibular area to be bombarded with an abnormal number of impulses that could strongly activate this area and radiate through the adjacent acetylcholine-mediated reticular area to the vomiting center.

Vomiting due to motion sickness is of no protective value. It is a complication that may be due to an anatomical accident, wherein the vestibular system and vomiting center are mutually involved with adjacent neurons of the reticular activating system. The norepinephrine system could be expected to react to strong vestibular activation as if to stress. It would then activate neural networks in an attempt to offset the effects of stress on the vomiting center. A parallel situation may exist in the temperature-regulating center of the hypothalamus during fever, when the areas associated with the sympathetic reactions predominate over those associated with the sympathetic reactions predominate over those associated with parasympathetic responses.

It may be that this synergism is the result of activation of the norepinephrine system which resists the development of motion sickness while also blocking the acetylcholine system that produces motion sickness.

The slow rotation room provides an excellent situation for observing the progression of symptoms as the subject becomes motion sick. The waxing and waning of symptoms is very clear. The subject may flush and then become pale; his mouth may become dry, or there may be an increase in salivation. Stomach awareness may build up to nausea, only to diminish two to three times before motion sickness develops. Less susceptible subjects may experience an initial build-up of symptoms that diminish to negligible level for the duration of the exposure to motion. Some minor symptoms, such as slight pallor can occasionally be detected in thoroughly habituated individuals. Both parasympathetic and sympathetic reactions are seen as motion sickness develops. The reactions involved with vomiting are for the most part parasympathetic, and in the past attempts have been made to classify subjects as sympathetic or parasympathetic reactors..

Motion sickness definitely appears to be a somatic and not a visceral reaction. The autonomic responses may be by-products of reticular activation and therefore of little importance in the development of motion sickness.

Habituation to motion by this proposed mechanism would be due to an enhanced response of the norepinephrine-mediated system. The increased organization of the neuronal network or mobilization of the enzymes necessary for increased norepinephrine activity would be activated by repeated exposure to motion. This would alter the balance of activity in the central nervous system and prevent motion sickness by allowing the norepinephrine system to predominate over the acetylcholine system. The cholinergic system does not appear to be diminished in sensitivity by habituation, as indicated by the fact that the vestibular reflexes demonstrate no loss in sensitivity during or after habituation. Postrotatory motion sickness, which is frequently observed when motion ceases after prolonged exposure in the slow rotation room, suggests that the cholinergic area remains in a highly activated state throughout exposure and after it as well.

It has been demonstrated by several investigators that the vestibular system interacts with portions of the reticular system. Acetylcholine is well established as a neurohumoral transmitting agent in these areas. There are also a number of studies that demonstrate the presence and importance of norepinephrine as a transmitter in the reticular and vestibular structures. The fact that different cell populations, some sensitive to acetylcholine and others sensitive to norepinephrine, are intermingled in both areas suggests that their overall activity depends upon

the balance between the transmitters. It may be postulated that the antemotion sickness drugs and habituation to motion both involve a decrease in susceptibility to motion. Neither confers absolute immunity; if stress due to motion is increased to an extreme level, motion sickness will develop. Both possibly act on the balance between the norepinephrine and cholinergic systems, which are competing for dominance owing to the build-up of vestibular impulses during exposure to motion. Motion sickness would occur when the acetylcholine activation exceeded the capacity of the norepinephrine system. When this point is reached, the reactions involved in vomiting would quickly build up and result in vomiting.

The proper antemotion sickness drug taken at the right time can increase resistance to motion sickness and assure a pleasant journey in place of a traumatic experience.¹²

ASSOCIATION BETWEEN MOTION SICKNESS AND MIGRAINE

Both migraine and motion sickness may be due to low brain levels of serotonin. Scientists believe that low levels of a brain chemical called serotonin may make people susceptible to developing migraine headaches. Many people with migraine also have a problem with motion sickness, but it is not clear why this might be. We know that many drugs to treat motion sickness increase brain levels of serotonin, an important brain chemical. It is possible that low brain levels of serotonin may also be responsible for motion sickness. Drummond reports on a study that evaluated whether low brain levels of serotonin trigger motion sickness in people with and without migraine.¹³

MANAGEMENT OF MOTION SICKNESS:

Patient characteristics (age, sex, pregnancy, lactation, concomitant illnesses, allergies, previous motion sickness) as well as the type and length of the exposure should be taken into account when prescribing motion sickness remedies.

Elderly passengers tend to be more resistant to motion sickness and may not require medication; pregnant women are particularly susceptible to nausea caused by motion sickness. Adequate hydration should be emphasized.

First, one must ascertain that the cause of the symptoms is really motion sickness and not something of a more serious nature.

Once symptoms have developed, treatment generally tends to be ineffective. One obviously should try to limit the offending motion, if possible. Supplying the patient with an outside visual reference will often stop the progression of symptoms. If that fails or cannot be accomplished, the patient should be instructed to lie down and keep head movements at a minimum. Oral medications are useless once the symptoms of motion sickness have appeared..

Finally, there are conditions that have been shown experimentally to potentiate disorientation, vertigo, and motion sickness. The doctor should be aware of these conditions and advise the air, ship, or car traveler concerning them. First, there is a good possibility that alcohol ingested in large amounts can be absorbed into the ampullae of the semicircular ducts and 5 to 10 hours after drinking can cause the semicircular ducts to be responsive to change in linear accelerations as well as angular acceleration. Nystagmus, motion sickness, and the illusions described earlier that are associated with excessive or unusual angular accelerations could, under these conditions, be produced by simple ascent in altitude in an airplane. Therefore, potential travelers who are particularly susceptible to motion should be advised to drink in moderation (or not at all) before and during their travel. Furthermore, potential travelers who are motion susceptible should be advised not to make an excessive number of head movements during the early phases of their trip. If they experience malaise, they should look out the window of the vehicle in which they are traveling and try to fixate on some stationary object, such as the horizon, and ignore their perceptions of body motion.¹¹

PREVENTION OF MOTION SICKNESS

By far, the most common method of preventing and treating motion sickness is the administration of medications. Other methods include biofeedback training, acupressure and acustimulation, and adaptation procedures.⁶

General advice for avoiding motion sickness

- Eat a light meal no less than 3 hr before exposure.
- Avoid dairy products and foods high in protein, calories, or sodium before exposure.
- Avoid alcohol, smoking, and disagreeable odors.
- Increase ventilation or exposure to cool, fresh air.
- Avoid visual stimuli (eg, reading, watching videos)
- Focus on a stable horizon or external object.
- Limit head movements (eg, press head into headrest)
- Stay in central location on boat or in airplane
- Sit in front seat of car or drive rather than be a passenger.
- Lie in supine position
- Basic method to alleviate motion sickness: while in a moving vehicle, steady your head against the back of your seat; fix your eyes on the horizon; do not allow your head or eyes to roll around.¹⁴

Exercises for motion sickness.

Recently there has been an exercise method proposed -- the "Puma" method. This appears to us to be a habituation protocol -- repeated exposure to the things that make one ill. This may well

work -- if you can tolerate the process. We are cautiously hopeful about this method -- although it seems to us to be likely to cause a lot of nausea itself.¹⁵

MOTION SICKNESS: FIRST AID:

Any type of transportation can cause motion sickness. It can strike suddenly, progressing from a feeling of uneasiness to a cold sweat, dizziness and then vomiting. Motion sickness may quiet down as soon as the motion stops. The more you travel, the more easily you'll adjust to being in motion.

You may escape motion sickness by planning ahead. If you're traveling, reserve seats where motion is felt least.

By ship, request a cabin in the forward or middle of the ship, or on the upper deck.

By plane, ask for a seat over the front edge of a wing. Once aboard direct the air vent to your face.

By train, take a seat near the front and next to a window. Face forward.

By automobile, sit in the front passenger's seat.

If you're susceptible to motion sickness:

Focus on the horizon or on a distant, stationary object. Don't read.

Keep your head still, resting against a seat back.

Don't smoke or sit near smokers.

Avoid spicy foods and alcohol. Don't overeat.

Stop being afraid of being in a car, on a boat or just walking down the street - get that life back!¹⁶

GENERAL THERAPIES

While medications may be an acceptable treatment for travelers who occasionally experience motion sickness, the goal for individuals who experience motion sickness on a regular basis or whose work is affected by their symptoms is to learn to control--and eventually prevent--these symptoms. This may be accomplished with mind/body practices, such as cognitive-behavioral therapy and biofeedback. The yogic breath exercise. Meditation: Color therapy remedies: Healing touch therapy: Music/sound therapy: Metaphysical remedies: Candle therapy emotional aspect: Counseling and Psychotherapy, Cognitive-Behavioral therapy, Hypnotherapy: Yoga therapy remedies: Acupressure nutritional therapy, Herbal treatment.¹⁷

HOMOEOPATHIC REVIEW OF LITERATURE

The scope of homoeopathy:

In defining the scope of homoeopathy it is necessary first to discriminate between the diseases per se, as a morbid vital process and the material results or products in which the morbid process ultimates. With the latter, homoeopathy primarily has nothing to do. It is concerned only with disease per se, in its primary, functional or dynamical aspect. It becomes necessary that, in homoeopathic prescribing to carefully separate the primary, functional symptoms, which represent the morbid process itself, from the secondary symptoms, which represent the end products of the disease. These tangible things which the examining physician finds in the body are not the disease, but merely its effects. Practically we do not deal with the abstractions. We deal with facts and phenomena, with symptoms. “The totality of these symptoms, of this outwardly reflected picture of the internal essence of the disease, that is, of the affection of the vital force, must be the principal, or the sole means, whereby the disease can make known (its nature and) what remedy is required.” The removal of all these perceptible symptoms or phenomena of disease itself restores health. (§ 8) Hahnemann thus philosophically distinguishes between disease itself and its causes, occasions, conditions, products and phenomena, and in so doing shows clearly that the sphere of homoeopathy is limited to the functional changes from which the phenomena of disease arise. In other words, homoeopathy is confined to and operative only in the sphere of vital dynamics. Primarily homoeopathy has nothing to do with the tangible effect or the product of the disease, although secondarily it is related to all of them. Homoeopathy deals with disease itself, the morbid vital process manifested by perceptible symptoms, which may remain and continue after the causes have been removed and conditions changed.

Homoeopathic remedies by virtue of their power to control vital functions and increase resistance, often exercise a favorable influence upon physical development as well as upon the tangible products of disease, or accident. Thus, the growth of tumours may be retarded or arrested; absorption and repair promoted, even to a total removal of the morbid product or growth; secretions and excretions may be increased or decreased. But, the real cure which takes place solely in the functional or dynamical sphere, quelling disturbance, controlling metabolism, raising resistance and bringing about cure by the dynamic influence of the symptomatically similar remedy.¹⁸

The Homoeopath needs to perceive the integrity of the patient in the essentiality of his spiritual being as an individual, of his true ego. He cannot then limit his clinical inquiry to the isolated examination of the symptoms or the organic dysfunctions, without referring these strictly to the general organization of the patient and perceiving the vital attitude that the patient already

assumes towards his sickness and his biological – psychic destiny. He finds out that every patient, according to the degree of conscience that he may have, prosecutes, in the profundity of his anguish, a goal, a scope of personal self-satisfaction, an elucidation of his own internal reality to relate it effectively to the existential meaning of his life. This meaning or purpose does not lie in conformation to the external reality merely to obtain material welfare or comfort, but, essentially, to comply with a necessity that compels him in a latent or direct manner, according to his mental condition towards the consummation of his life. Thus does the patient relate himself to the performance of his specific possibility of values that, now, enlarge his role as an individual and around which essential aim, the whole human life rotates.

The perception, through the biographic report, of the obsessive features, modalities of the conscience, anxiety, sensibility, fears, jealousy, hopelessness, suspiciousness, anguish, affective relationship with the fellow creatures and with things, phobias, sorrow, frustration, etc., provide to the Homoeopathic physician clinical evidence of higher value.¹⁹

Dr. Kent Says:

1. We must dwell long upon what it is in the human being that must be changed, in order to restore men from sickness to health.
2. We must meditate long upon what it is in remedies or drugs that constitutes a healing power or principle.

So long as one thinks that man is sick because his organs are not doing proper work, just so long he cannot construct a treatment that accords with THE ORGANON. So long as one regards the results as causes, so long the time idea is observed.

Traditional nosology may be useful so long as we have a public sphere to maintain, but it is useless in the homoeopathic art of healing. It must be clearly settled what it is in man that is first, and what is last, what is highest, and what is lowest, what is innermost, and what is outermost before we can perceive what are causes and what are ultimates. So long as one thinks of pathological conditions as causes, so long will he act in directions that are the opposites of healing and towards destruction.²⁰

As Goethe will puts it “Was man weiss man sieht” (What one knows one sees). We should, therefore, try to examine and determine what type of knowledge we should possess if we are to develop the right type of attitude which will aid us in determining and matching the portrait of the disease with that of the remedy in the Homoeopathic Materia Medica.²¹

INDIVIDUALIZATION:-

We have learnt that the remedy will be known to us through the individual features of the case as against the group features that enable us to diagnose the clinical condition. Our chief concern during case receiving, therefore, will be to bring out this individuality which is made known to us through (i) the chief complaint (ii) Concomitants and (iii) the type of individual afflicted. The successful application of the law of similars depends entirely on the concepts of individualization and susceptible constitutions, which form the cornerstone of Homoeopathic practice. The concept of individualization takes into consideration the total response of the organism to the unfavourable environment. This total response is seen through signs and symptoms on three planes emotional, intellectual, and physical where the life force manifests itself. While assessing this total response the homoeopathic physician gives fundamental importance to the causative factors and to the peculiar characteristics of the ailments, especially the mental aspects. The concept of susceptible constitutions is reflected in Hahnemann's Theory of Chronic Diseases, which takes into consideration the hereditary influences and predispositions that play an important role in the genesis of illness. Homoeopathic therapeutics, therefore, affords unlimited possibilities of influencing favourably the mental causes and of mitigating the adverse influences of the hereditary predispositions to illness, thereby leading to a better adaptation of the patient to his environment.²¹

The Totality of the Symptoms:-

A positive understanding of the principle of Homoeopathy is much to be desired. Many failures result from a "Sketchy" totality, first stands to reason that any prescription based on symptoms as its foundation, the more symptoms the better the prescription. All symptoms, both basic and determinative (objective) should be considered. Moreover due regards to Pathology and its effect on the case percent must be considered. This is because pathology may modify the quality of a symptom, sensation, or a modality. Well trained modern medical students have a great advantage over the older Homoeopaths in this way since their knowledge of disease processes is more profound and hence, they should be able to evaluate and discount the complaints of the patient.²⁰

The totality in acute diseases is similar. Much of these investigations are necessarily dispensed with. The physician recognizes its symptomatology and the case is quickly disposed of.²²

SUSCEPTIBILITY:-

Susceptibility and disease:

Normal susceptibility leads to a state of good health characterized by good nutrition and a healthy outlook on life. Abnormal susceptibility, on the other hand, affects them in the first

instance and interferes with the processes of adaptation and thereby leads to development of disease.²¹

Susceptibility and cure;

The same processes of adaptation which maintain health and prevent disease restore a diseased individual to health. An intelligent physician will promote these activities and processes of recovery and do nothing that will impede them. He will definitely not do away with the signposts that indicate the remedy and the abnormal susceptibility at the same time. Restoration to normal susceptibility, therefore, is a prerequisite to cure.²¹

Increased susceptibility promotes development of disease and abnormal response to stimuli in the environment which ordinarily are innocuous. This capacity for abnormal and exaggerated response is seen in the clinical states of Atopy and Allergy, Collagen disorders, Nephritis, certain Hematological Disorders and many a wide variety of illness resulting from variegated causes.

DIAGNOSES OF WHAT IS CURABLE:-

The true physician must know that whatever it is in man that is morbid can represent itself by signs and symptom only. These he must mediate upon earnestly, patiently and wisely, that he may find in the Materia Medica symptoms most similar, or careless in discovering of the best interest of sick people, or careless in discovering and writing down their symptoms, or too indolent to search for corresponding symptoms in the Materia Medica, or if he is given to making light of the symptoms he hears the patient speak of; or of the symptom he reads in the Materia Medica, he will never prosper or grow wise with age, but will go the way - of all such men into indolence and levity, depending upon hired laboratory findings for the basis of a prescription.²⁰

Etiological factors

The immediate cause of the patient's illness, if determinable or its exciting factor may be of a great aid in the selection of remedy.²²

Is there anything in the aetiology of the disease which would help us to select a drug?

1. Does inspection of the patient and his actions call to mind a remedy?
2. Do the complaints of the patient correspond to the characteristic sensation and modalities of any drug which we can think of off hand?
3. In a case which has "gone the rounds", are the symptom present due by any chance to "drugging"? this is frequently overlooked.

Probably several drugs qualify as possible remedies at this point. We next must reinforce our choice (or eliminate it) by the following questions

1. Does the elective affinity of the drug correspond?
2. Is the drug seemingly Homoeopathic or actually Homoeopathic? i.e., does it produce symptoms in the same manner that the disease produces symptom in our patient?
3. Is it capable of similar functional change, similar irritation, similar pathology?
4. Does it correspond to the stage the disease is then in?.²²

FROM MATERIA MEDICA AND THERAPEUTICS:-

Every effort is being put forth to re-establish the science of medicine upon a positive basis, yet there efforts are based upon pure theory. What can be more positive or matter of fact than the written declaration of the interested patient, or the prover? These are assertions of fact, and that are daily confirmed by thousands of experiences.

The study of the homoeopathic pathogenesis, which is so extensive requires so much time and perseverance that men who are given to carelessness, indolence and levity, can do very little to make a showing for professional glory, hence the stupid, the flippant and the 'smart' must always seek the Material method and make it the basis of his efforts, thereby associating with, or placing himself on the same level as, the Mechanic.²⁰

He was the first to apply the inductive method of research to Therapeutics. He says, in the preface, to the second edition of the Organon, published in 1818. "The true healing art is in its nature, a pure science of experience, and can and must, rest on clear facts and on the sensible phenomena pertaining to their sphere of action. Its subjects can only be derived from pure experience and observation, and it dares not take a single step out of the sphere of pure, well observed experience and experiment". And again "Every one of its conclusions about the actual must always be based on sensible perceptions, facts a not experiences, if it would elicit the truth"

APPLICATION OF REMEDIES TO SICKNESS: USE OF POTENCIES: _

And lastly, the physician must know how to adjust the one to the other, in order to gain the ends of healing. Our pathogenesis have expanded into enormous proportion, so vast that no mind can encompass them, yet this once may be expanded very many times by a full knowledge of the uses of the various potencies. The physician who knows how to use the various potencies has ten times the advantage of the one that always uses one potency, no matter what that potency is.

In person suffering from chronic sickness and not so sensitive the 10 M may first be used, and continued without change so long as improvement lasts; then the 50 M will act precisely in the

same manner, and should be used so long as the patient makes progress towards health; then the CM may be used in the same manner, and the DM and MM in succession.

By this one of the series of potencies in a given case, the patient can be held under the influence of the similimum or a given remedy, until cured. When the similimum is found, the remedy will act curatively in a series of potencies. If the remedy is only partially similar, it will act in only one or two potencies; then the symptoms will change and or new remedy will be demanded.²⁰

THE MIASMS:

It is to the minute symptomatology that we require our attention in our investigation and study of miasm, which may guide to some of the chronic miasm underneath which topples the life force. No doubt there exists some minute distinction in the pathological change but we cannot detect those differences. So you can readily see the impracticability of using these changes as a standard of therapeutics but we can always take the totality of symptoms as standard for prescribing as it is corresponding to the law.²³

First indication of Psora: Hypersensitivity for its extraordinary sensitivity it is called the sensitizing miasm. Psora mainly created by disturbances in sensations and functions. Susceptibility is Psora and sensitivity is its basic property. It is because of this property that human beings from birth to death remain susceptible to the influences of environment and disease. Psora is neither scabies nor itches, though they are among its many manifestations Vertigo with sensations of falling or as if in a boat; vertigo on riding in a boat or at sea, with nausea and vomiting, or riding in a street car or in a carriage. Psoric patients cannot be disturbed much; they prefer to remain quiet when sick unless the mind is affected. When active, its first attack is directed against mind and nervous system to force the brain to defy the healthy dictates of vital force and make it inactive against its activities. The Psoric miasm is responsible for all acute and chronic diseases.²⁴

FROM THE MATERIA MEDICA:

Although very few studies have examined the effectiveness of specific homoeopathic therapies, professional homoeopaths may consider the following remedies for the treatment of motion sickness based on their knowledge and experience. Before prescribing a remedy, homoeopaths take into account person's constitutional type. A constitutional type is defined as a person's physical, emotional and psychological makeup. An experienced homoeopath assesses all these factors when determining the most appropriate treatment for each individual.

An episode of motion sickness can be treated with several homoeopathic remedies; however, it is important to obtain medically qualified treatment.²⁵

Apomorpha: This remedy has gained quite a reputation for the cure of seasickness. There are no special indications for its use, except that it has vomiting of cerebral origin. It should never be given lower than the 6x potency Theridion has proved useful in seasickness in nervous women; they shut their eyes to get rid of the motion of the vessel and grow deathly sick. Staphisagria has also attained some success in the treatment of seasickness. Glonoine is the remedy especially when there is giddiness, warm sickening sensation in the chest and stomach and a faint feeling..

Argentum nitricum: Indications for this remedy include dizziness, faintness, nausea, retching, and possibly balance or perception problems. The person may feel claustrophobic or be extremely anxious and excitable. Eating too much sweet or salty food may have contributed to the problem.

Asarum: This remedy is indicated when a woman feels very ill, with **constant nausea and retching**. She is extremely sensitive to everything—especially noise, which can aggravate the nauseous feelings. She feels best when lying down and resting. Cool drinks or food may help, but it is hard for her to even think of eating.

Borax : Indications for this remedy include nausea, gas, and possibly diarrhea. The person has a fear of any downward motion (as is felt on a plane or roller coaster) and can be made sick by it. The person may also be very sensitive to noise, warm temperatures, and cigarette smoke.

Bryonia :A person needing this remedy usually wants to stay completely still and not be talked to or touched. Nausea and vomiting, with pain and pressure in the stomach, can be worse from even minor movements. The person may have a dry mouth and want cold drinks. This remedy can also help with constipation.

Cocculus: Indications for this remedy include nausea or motion sickness, dizziness, palpitations, headache, numbness, and an empty or hollow feeling in various parts of the body. The person may talk nervously, yawn, or tremble, and is likely to feel extremely weak.

Colchicum: Horrible nausea that is worse from the sight and smell of food (especially eggs or fish) often indicates this remedy. The woman retches and vomits, and has a sore and bloated feeling in the abdomen. She has trouble eating anything — although she often craves things, when she tries to eat them they make her sick. She is likely to feel ill from many smells that others don't even notice.

Ipecacuanha: This remedy is indicated for intense and constant nausea that is felt all day (not only in the morning) with retching, belching, and excessive salivation. The woman may feel worse from lying down, but also worse from motion. Even after the woman vomits, she remains nauseous.

Kalium phosphate: Is a biochemic tissue salt which is very effective in the treatment of anxiety and stress and is often referred to as a natural tranquilizer. It has many benefits, among them the relief of a 'nervous stomach'.

Kreosotum: When this remedy is indicated, the woman may salivate so much that she constantly swallows it, becoming nauseous. She may also vomit up food that looks undigested, several hours after eating.

Nux vomica: Nausea, especially in the morning and after eating, may respond to this remedy—especially if the woman is irritable, impatient, and chilly. She may retch a lot and have the urge to vomit, often without success. Her stomach feels sensitive and crampy, and she may be constipated. This remedy can also help with constipation.

Petroleum: This is by all odds the most frequently indicated remedy in seasickness. Dr. Bayes says it is the only medicine that he found to be of any use; he used the 3d potency. Hughes also praises it in this affection and the writer has used it with success. The special symptoms are nausea, which is accompanied by vertigo, the vertigo coming on especially when the a patient raises his eyes. These symptoms are worse from motion or riding; there is rather a persistent nausea and qualmishness than vomiting, although bilious vomiting also occurs. It undoubtedly has prophylactic powers and may be taken night and morning for a week or two before sailing.

Pulsatilla: This remedy can be helpful if nausea is worse in the afternoon and evening (often in the morning, as well). The woman is not very thirsty, although she may feel better from drinking something cool. She can crave many different foods, but feels sick from many things (including foods she craves). Creamy foods or desserts may be appealing, but can cause discomfort and burping or bring on vomiting. A woman who needs this remedy usually is affectionate, insecure, and weepy—wanting a lot of attention and comforting.

Sepia: Gnawing, intermittent nausea with an empty feeling in the stomach suggests a need for this remedy. It is especially indicated for a woman who is feeling irritable, sad, worn out, and indifferent to her family. She feels worst in the morning before she eats, but is not improved by eating and may vomit afterward. Nausea can be worse when she is lying on her side. Odors of any kind may aggravate the symptoms. Food often tastes too salty. She may lose her taste for many foods, but may still crave vinegar and sour things. This remedy can also help with constipation.

Tabacum: This remedy can be helpful to a woman who feels a ghastly nausea with a sinking feeling in the pit of her stomach. She looks extremely pale, feels very cold and faint, and needs to lie very still and keep her eyes closed. If she moves at all, she may vomit violently—or break out in cold sweat and feel terrible. Tabacum produces an astonishing resemblance to seasickness and car sickness and in the higher potencies is sometimes very efficacious.

If symptoms include a burning sensation during elimination of your stools, chills, sweating, anxiety about being alone, extreme thirst for sips of warm drinks, and restlessness during the night, and if these symptoms worsen after midnight, your best remedy is **Arsenicum**.

If symptoms include gurgling sounds from your intestinal tract, a weak feeling in your anal sphincter, forceful expulsion of stools that smell bad, headache, gagging, retching, cramps in your feet and legs, and extreme thirst and craving for cold beverages, your best remedy is **Podophyllum**.

If symptoms include a constant urge to eliminate, retching while going to the bathroom, blood in your stool, fever and chills, profuse sweating, bad breath, drooling while sleeping, mental and physical sluggishness, and an extreme thirst and craving for cold beverages, your best remedy is **Mercurius**.

If symptoms include diarrhea (that smells like rotten eggs) accompanied by a burning sensation, reduced appetite, a craving for cold drinks, perspiration on your face and feet, a disregard for your personal hygiene, and feelings of irritability and weepiness, and if these symptoms worsen at night and in the very early morning, your best remedy is **Sulphur**.

If symptoms include vomiting, diarrhea, bloating, stomach cramps, chills, and cravings for ice-cold drinks, your best remedy is **Veratrum album**.²⁶

Even though motion sickness has been mentioned in the homoeopathic literature; a systematic, scientific and a detailed study has not been done. Quite a number of remedies in Homoeopathic Materia Medica and references from Philosophy books give a ray of hope for Homoeopathic treatment for this common but incapacitating disorder. Homoeopathy uses infinitesimal doses of natural substances to stimulate a person's immune system and body's natural defenses. Homoeopathy not only offers relief from temporary disorders but can provide long term healing of a person due to its individualistic and wholistic approach. This type of healing makes it easier and possible to avoid recurrences or relapses in the future and Homoeopathy stimulates the body's natural defense system by re-establishing normal immune system and cell functioning.

In most cases treatment with homoeopathic drugs is therefore necessary and in some cases it is the only method of treatment as conventional treatment cannot offer a cure always. Merely treating Motion sickness on symptomatology basis has failed to give permanent relief. So a holistic approach considering the individualistic treatment to provide an improved understanding of the patient's situation and to make it easier and possible to avoid recurrences in the future has to be kept in mind in treating such diseases.

THERAPEUTICS ON MOTION SICKNESS

“That alone is right medicine which can remove disease. He alone is the true physician who can restore health.” (Charak Samhita, Sutrasthanam)

Antimonium tart: - Great debility; dizziness with sparks before eyes. Abundant saliva in mouth; continual nausea, with anguish and oppression in pit of stomach; violent vomituration, with copious discharge of saliva, lassitude in legs; copious vomiting, with great straining, desire to coil himself up, chilliness and desire to sleep tendency to faint (when Cocc. fails).

Apomorphinum: - Sudden and profuse vomiting with little or no antecedentia; reflex vomiting, usually from brain; heaviness of head or vertigo, roaring in ears, feeling of anxiety in praecordial region and pressure in chest; after vomiting prostration, desire to sleep, faintishness and fainting.

Arsenicum: - Horror for any motion; rapid loss of strength; ill-humor; repugnance to conversation; excessive nausea with fainting; violent vomiting of food and drink, with excessive pain in stomach; diarrhea. Throbbing stupefying headache over left eye of such severity as to render him angry and irritable, temporarily > by cold water on head, < from wrapping up head warm; intermitting, tearing, boring, burning pain in right supraorbital region, extending over eye and into upper teeth, > by walking about; periodical pain above left eyebrow and temple, followed by vomiting of a yellow, bitter or tenacious mass.

Cocculus: - Vertigo, as if drunk; vertigo and cramps in stomach, as soon as he raises himself from recumbent position, as if everything turned round, and inclination to vomit; excessive nausea and vomiting when riding in a carriage; when in bed she is scarcely able to raise herself, owing to nausea and inclination to vomit, exciting profuse salivation; violent cardialgia; compressive pinching in epigastrium, arresting breathing; great sensitiveness to noises. Migraine with vertigo and nausea, pain especially in frontal protuberance and left orbit, < eating, drinking, starting up, walking in fresh air; sick-headache from riding in a carriage, boat, train of cars; headache at each menstrual period, with nausea and inclination to vomit.

Glonoinum: - Faint, warm, sickening sensation in chest and stomach; slight giddiness on moving about; faint feeling; spasmodic vomiting; pit of stomach the seat of distress. Hemicrania from excessive use of wine; nausea, is obliged to sit down, dimness before eyes, like a cloud, followed by most violent headache, > by vomiting.

Graphites: - Great vertigo in the morning after a good sleep, especially on looking upward; weakness of the head down to neck; attacks of dizziness with inclination to fall forward; desolate, empty feeling in head.

Hyscyamus: - Undulating sensation in brain, as if water were swashing in the head; vertigo, with feeling of drunkenness; nausea, retching, vomiting.

Ipecacuanha: - Constant sensation of nausea, vomiting without any relief; thirst, sweat, foul breath, but little prostration and hardly any pain with the vomiting. Sick-headache, brain feels bruised and as if it were drawn down to the root of the tongue and into teeth; nausea, vomiting, > outdoors.

Kali carb: - Vertigo as if proceeding from the stomach; loss of consciousness; frequent dullness of the head as after intoxication, and as if the ears were stopped up, with nausea almost unto vomiting; vertigo when walking; vertigo as if her head were too light, must take hold of something.

Lycopodium: - Dizzy in the morning as if drunk; whenever she sees anything turning round she has for an hour the sensation as if something turned round in the body; vertigo when getting up from his seat, whilst drinking, in a hot room; vertigo from care of business.

Nitric acid: - Vertigo when raising the head after stooping; vertigo when walking or sitting, obliging him to lie down; vertigo early in the morning when rising, with obscuration of sight he had to sit down; vertigo, with nausea, early in the morning, followed by eructations; vertigo, with pulsations in the head and pressure in the middle of the brain, in the evening.

Nux vomica: - Bilious temperament, haemorrhoids; acid vomiting from least motion; gastralgia < from food, > from hot drinks; pressure in epigastrium as from a stone, < mornings and after meals; vertigo, buzzing in ears, nausea and urging to vomit; hernia; habitual use of tobacco and alcoholic drinks. Gouty and hemorrhoidal patients. Attack sets in the morning when awaking, getting worse during the day; nausea and vomiting during attack; becoming often most severe in occiput; drawing, aching feeling as of a nail driven into the head, or as if the brain were dashed to pieces; face pale, or sallow on a red ground; < from mental exercise, by motion and by rest, from stimulants; patient irritable with is abdominal plethora.

Petroleum: - Irritability; dizziness even in bed and pallor of face; violent nausea with cold sweat; vomiting after long-continued nausea, often of bile mixed with blood; gastralgia, with pressing-drawing pains; > from eating; cold feeling in abdomen; diarrhoea after riding in a carriage. Chronic vertigo, chilblains, herpetic constitution.

Platina: - Passing attacks of vertigo in quick succession in the evening when standing, as if he would lose his senses. Violent vertigo, she dare not move her eyes; more in the daytime than at night, generally attended with palpitation of the heart; headache after the vertigo, as if torn and pulled into shreds; everything looks small to the patient.

Pulsatilla: - Giddy staggering when walking, particularly in the evening, with heat in the head; and pale, but not hot face; vertigo on rising from a seat, after dinner, during a walk in the open air; vertigo, with obscuration of sight, roaring in the ears, aggravated by talking and meditating; vertigo, especially when sitting; vertigo when turning the eyes upward, as if he would fall, or as if he were dancing; vertigo when stooping, scarcely permitting her to rise again, afterwards disposition to vomit; gloomy sensation in the head and vertigo, excited by motion. Nausea and vomiting, with very bad taste in mouth, of substances thrown up, with desire to cleanse mouth frequently with cold water; slimy, sticky feeling in mouth; vomiting about an hour after eating, with relief to nausea and colic; < by fruit, fats, pastry, ices. General chilliness; scanty menses; bursting, throbbing or boring, stitching pains on one side of head, obscuration of sight, white tongue, nausea and vomiting; thickly furred tongue with clammy mouth and relief from cold air; shifting pains < evenings.

Sanicula: - Seasickness, with desire for cool, open air; nausea and vomiting as soon as he leaves the deck; cannot ride in car or carriage without becoming sick and vomiting.

Sepia: - Vertigo, when walking in the open air, as if all the objects were moving around on, or as if suspended in the air, with unconsciousness; when rising from the bed in the afternoon, while looking upward, causing him to stumble; while moving the arms, while looking at a large level plain; stupid and dizzy, he does not know what he is doing. Painful sensation of emptiness of stomach; smell of food aggravates nausea; vomiting of bile and food, of a milky fluid. Pains over one eye of a throbbing character, deep stitching pains in the membranes of the brain, shooting upward or from within outward; jerking of head backward and forward; pains set in suddenly, especially in the morning, accompanied by hot flashes, stiff neck, nausea, by going into the fresh air, < light, noise, motion; arthritic headaches with hepatic affections, urine loaded with uric acid, and hysterical headaches in women with uterine malpositions, leucorrhoea and menstrual disturbances.

Silicea: - Vertigo starts from neck and runs up into head; great despondency; dizziness, as if one would fall forward, < from motion or looking upward; pale face; desire only for cold; nausea and vomiting of tenacious mucus. Rush of blood to head, great sensitiveness of hair falling out of hair, perspiration on head, pains running from neck up into head, paroxysms end with profuse urination; headache every seventh day; violent periodic hemicrania, vertex, occiput or forehead, often with nausea to fainting and obscuration of sight; < from mental exertion, motion, even jarring of room by footstep, stooping, talking, light, cold air, touch; > heat, lying down in dark.

Staphisagria: - Long attacks of vertigo, accompanied by continual nausea; brain aches, as if torn to pieces, on rising from bed, < from any motion, > from rest and warmth; great desire for

stimulants and tobacco, but it makes him sick; sensation as if stomach were hanging down relaxed, wants to hold up abdomen; nervous weakness, sleepy all day, sleepless at night.

Sulphur: - Vertigo, especially from seeing running water, when rising from bed, from crossing a river, with vanishing of sight, inclination to fall to left side, nausea and vomiting, first watery, then of food; empty gone feeling in stomach; constipation and haemorrhoids.

Tabacum: - Vertigo with pallor of face, pain in stomach, vomiting with cold clammy sweat, even to fainting; great general lassitude, no. desire to exert himself or for society; vomiting renewed by the least motion.

Theridion: - Traveler shuts his eyes to get rid of the motion of the vessel and turns deathly sick, with cold sweat; vertigo with nausea as soon as he leaves the recumbent position, cannot lift head up, < from least noise, when increases the vertigo; anxiety about heart; pulse slow, with vertigo. Put on a stout flannel bandage snugly around abdomen to prevent as much as possible the motion of the viscera. Flickering before eyes; nausea < by closing eyes and by noise; extreme hyperaesthesia of acoustic nerve; throbbing over left eye and across forehead, sick stomach, < on rising from lying; desire for stimulants.²⁷

REPERTORY ON MOTION SICKNESS

The use of Repertory is one of the higher branches of our art and before it can be mastered, the law governing the homoeopathic treatment and cure of disease as given to us in the Organon and Chronic Diseases must be learnt-G.I.Bidwell.

Homoeopathic Repertory is a qualitative tool. It is not merely a quantitative compilation of symptoms or rubrics with related homoeopathic materia medica as the product of the 'highest' wisdom. Homoeopathic repertory has been originated from materia medica. Hence it has within its structure the wisdom of materia medica. However, although retaining the protean symptomatology of materia medica, it has its own form which caters to the needs of varying types of data which diverse patients present to a homoeopathic physician.

This Repertory is compiled with my clinical experience. Rubrics are arranged alphabetically, Gradings are as per Dr.Kent's Repertory.

Bold letter -	3marks-	First grade,
<i>Italics</i> -	2marks-	Second grade
Ordinary-	1mark-	Third Grade

MIND

RIDING in a Carriage, averse to: Psor.

TRAVEL, desire to: Anan., aur., **Calc-p.**, cemic., cur., elaps, *hipp.*, *iod.*,
lach., mere., sanic., *tub.*

ABDOMEN

ABDOMEN – DIARRHOEA -CAUSE-OCCURRENCE:

From motion – Apis; Bry.; Cinch.; Colch.; Nat. s.

From motion downward – Bor.; Cham.; Sanic.

COUGH

RIDING: Staph., sulph., sul-ac.

EXTREMITIES

journey, after: Pic-ac.

WEAKNESS, leg.

GENERALITIES

FAINTNESS:

riding, while: *Berb.*, *grat.*, *sep.*, sil.

HEAD – VERTIGO:

Dizziness: Remedies in general:- *Absinth.*; *Acon.*; Adren.; Esp. gl.; Eth.; *Agar.*; *Alum.*; Ambra; Ant. c.; *Apis*, Apomorph.; *Arg. n.*; Arn.; Ars. iod.; Aur. mur.; Bapt.; *Bell.*; Bism.; Bor.; Bry.; *Calc. c.*; Can. ind.; *Carb. ac.*; *Carbo v.*; Chenop.; *Chin. s.*; *Cim.*; *Chinch.*; *Cocc.*; *Con.*; Cycl.; Dig.; Eup. perf.; Ferr .m.; Formal.; *Gels.*; *Gins.*, *Glon.*; *Grant.*; *Hydroc. ac.*; Iod.; Kali c.; Laburn.; Lach.; *Lith cblor.*; Lol.; Lupul.; Merc. v.; *Morph.*; Mosch.; Nat. sal.; Nicot.; *Nux v.*; Op.; Ox. ac.; Petrol.; *Phos.*; *Picr. ac.*; Pod.; *Puls.*; Quercus; Radium; Sal. ac.; Senec.; Sep.; *Sil.*, Spig.; Stront.; Strych.; Sul.; *Tab.*; Tar. h.; *Ther.*; Wyeth.

Mal-de-mer – Apomorph.; *Cocc.*; Petrol.; Staph.; Tab.

HEAD – OCCURRENCE – When ascending stair – Ars. hydr.; *Calc. c.*

When descending stair – *Bor.*; *Con.*; *Ferr.*; *Meph.*; *Sanic.*

looking down – *Bor.*; *Oleand.*; *Kal.*; *Spig.*

looking fixedly – *Caust.*; *Con.*; *Lach.*; *Oleand.*

looking up – *Calc. c.*; *Chin. ars.*; *Granat.*; *Kali p.*; *Petrol.*; *Puls.*; *Sil.*; *Tab.*

riding in carriage – *Cocc.*; *Hep.*; *Lac d.*; *Petrol.*

Nausea, Vomiting – *Acon.*; *Bry.*; *Cocc.*; *Euonym.*; *Kali bich.*; *Nux v.*; *Petrol.*;

Piloc.; *Pod.*; *Puls.*; *Stront.*; *Tab.*; *Ther.*

Relief from closing eyes – *Aloe*; *Lol.*

from holding head perfectly still – *Con.*

With balancing sensation – *Ferr. m.*

HEAD

HEAD – CONCOMITANTS:

Nausea – *Aloe*; *Ant. c.*; *Ars.*; *Bry.*; *Cocc.*; *Ferr. m.*; *Gels.*; *Indol*; *Ipec.*; *Iris*; *Lac c.*; *Lac d.*; *Lob. infl.*; *Lob purp.*; *Naja.*; *Nat. m.*; *Nux v.*; *Paul.*; *Petrol.*; *Puls.*; *Sang.*; *Sep.*; *Sil.*; *Tab.*

Vertigo – *Acon.*; *Agrost.*; *Bry.*; *Chin. s.*; *Chinch.*; *Cocc.*; *Exp. purp.*; *Gels.*; *Glon.*; *Ign.*; *Lept.*; *Lob. purp.*; *Nux v.*; *Pod.*; *Sep.*; *Xanth.*

Riding in cars – *Cocc.*; *Kali c.*; *Petrol*

MODALITIES,

Motion Amel – *Abrot.*; *Esc.*; *Alum.*; *Ars.*; *Asaf.*; *Aur.*; *Bell.*; *Bellis*; *Brom.*; *Caps.*; *Fluor. ac.*; *Gels.*; *Helon.*; *Homar.*; *Ing.*; *Indigo*; *Iris*; **Kali c.**; *Kali iod.*; *Kali p.*; *Kreos.*; *Lith. c.*; *Lith. lact.*; *Lob. infl.*; *Lyc.*; *Mag. c.*; *Mag. m.*; *Magnol.*; *Menyanth.*; *Nat. c.*; *Op.*; *Parth.*; *Pip. menth.*; *Plat.*; *Puls.*; *Pyr.*; *Radium*; *Rhod.*; *Rbus t.*; *Ruta*; *Sabad.*; *Samb.*; *Sep.*; *Stellar.*; *Sul.*; *Syph.*; *Val.*; *Ver. a.*; *Xerophyl*; *Zinc. m.*

Riding in carriage Amel – *Nit. ac.*

Thinking of symptoms Amel – *Camph.*; *Helleb.*

RIDING:

horse back agg: *Ars.*, *bell.*, *bry.*, *graph.*, *lil-t.*, *mag-m.*, *meph.*, *nat-c.*, **Sep.**, *sil.*, *spig.*, *sul-ac.*, *valer.*

in a wagon, or on the cars: *Arg-m.*, *arg-n.*, *arn.*, *ars.*, *aur.*, *bor.*, *bry.*, *calc.*, *carb-v.*, **Cocc.**, *colch.*, *con.*, *croc.*, *ferr.*, *hep.*, *hyos.*, *ign.*, *iod.*, *kali-c.*, *lach.*, *lyc.*, *lyss.*, *mag-c.*, *meph.*, *nat-m.*, *nux-m.*, *op.*, **Petr.**, *phos.*, *plat.*, *psor.*, *puls.*, *rhus-t.*, *rumx.*, *sel.*, **Sep.**, *sil.*, *staph.*, *sulp.*, **Ther.**, *thuj.*, *valer.*

amel.: *Ars.*, *brom.*, *kali-n.*, *nat-c.*, *nat-m.*, *nit-ac.*, *plat.*, **Sil.**

RECTUM

RECTUM – CONSTIPATION:

traveling while: *Alum.*, *nux-v.*, *op.*, **Plat.**

SLEEP

SLEEPINESS:

riding, while: *Bapt.*, *brom.*, *carb-c.*, *carb-m.*, *chin-s.*, *lyc.*, *op.*, *phys.*, *sulph.*

in a carriage: *Bapt.*, *pall.*, *phys.*, *sulph.*

STOMACH

STOMACH – NAUSEA,

riding in a carriage or on the cars while: *Bor.*, *calc.*, *calc-p.*, **Cocc.**, *cycl.*, *hep.*, *iris*, *selen.*, **Sep.**, *sulph.*, *tab.*, *ther.*, *zine.*

rising the mouth, on: *Bry.*, *sep.*, *sul-ac.*

salivation, with: *Crot-t ip.*, **Lob.**, *nux-v.*, *petr.*, *puls.*, *sang.*

seasickness: *Carb-ac.*, **Cocc.**, *colch.*, **Con.**, *glon.*, *hyos.*, *kali-bi.*, *Kreos.*, *lac-ac.*,

nat-m., **Nux-v.**, **Petr.**, *sep.*, *staph.*, **Tab.**, *ther.*

thinking of it agg: *Arg-m.*, *calc.*, *dros.*, *graph.*, *lach.*, *mosch.*, *sars.*, *sep.*

vomiting does not amel.: *Dig.*, *sang.*

STOMACH – THIRST:

unquenchable: vomiting before: **Eup-per**

STOMACH – VOMITING:

motion on: *Ant-t.*, **Ars.**, **Bry.**, bufo, **Cadm.**, *colch.*, *cupr.*, *ferr.*, iod., kali-bi.,

kalm., *lac- d.*, *lach.*, *lob.*, *nux-v.*, *petr.*, stram., **Tab.**, ther., *verat.*, zinc.

riding in a carriage, while: *Ars.*, bell., **Carb-ac.**, **Cocc.**, *colch.*, *ferr.*, ferr-p., glon.,

hyos., nux-m., **Petr.**, phos., sec., *sil.*, stap., sulph., **Tab.**

vertigo, during: *Ail.*, *ars.*, calc., *canth.*, *chel.*, cemic., crot-h., crot-t., *glon.*, gran.,

graph., *hell.*, kali-bi., kali-c., *lach.*, *merc.*, mosch., *nat-s.*, **Nux-v.**, cena., **Petr.**,

Puls., *sang.*, sars., sel., **Sep.**, tell., ther., **Verat.**, *verat-v.*, vip.

STOMACH

STOMACH - NAUSEA :

from looking at moving objects – *Asar.*; *Cocc.*; *Ipec.*; Jabor.

from riding in cars, boat – *Arn.*; **Cocc.**; *Lac d.*; *Nux m.*; Nux v.; **Petrol.**;

Sanic.; Ther.

from smell or sight of food – *Eth.*; *Ars.*; *Cocc.*; *Colch.*; **Nux v.**; *Puls.*; **Sep.**;

Stann.; *Symphor.*

With drowsiness – *Apoc.*

faintness – *Bry.*; *Cocc.*; *Colch.*; Hep.; Nux v.; Plat.; *Puls.*; Tab.; val.

headache – *Aloe.*; Formica; *Puls.*

salivation – *Ipec.*; *Petrol.*; Sang.

vertigo – **Cocc.**; *Hyos.*; *Lach.*; *Puls.*; Tab.; **Ther.**

Worse from motion, rising – *Ars.*; *Bry.*; *Cocc.*; *Symphor.*; **Tab.**; Triost.; *Ver. a.*

STOMACH, SENSATION:

Empty, faint, sinking, 'all gone' feeling - *Abies c.*; *Anac.*; *Apoc.*; *Asaf.*; *Bapt.*; *Bar. mur.*; *Caps.*; *Carbo an.*; *Carbo v.*; *Cim.*; **Cocc.**; *Dig.*; *Diosc.*; *Gels.*; *Graph.*; *Hydr.*; *Hydroc. ac.*; *Ing.*; **Kali c.**; *Kali p.*; *Lac c.*; *Latrod.*; *Lob. infl.*; *Lyc.*; *Merc. s.*; *Morph.*; *Murex*; *Ornitog.*; **Petrol.**; *Phos.*; *Ptel.*; **Puls.**; *Radium*; *Sang.*; *Sep.*; *Stann.*; *Sul., Tab.*; *Tellur.*; *Thea*; *Thuya*; *Trill.*; *Vib. op.*

STOMACH, CAUSE:

Motion – *Bry.*; *Cocc.*; *Colch.*; *Dig.*; *Nux v.*; *Tab.*; *Thet.*; *Ver. a.*

sea-sickness; car sickness – **Apomorph.**; *Ars.*; *Bor.*; *Carb. ac.*; *Cerium*; **Cocc.**; *Coff.*; *Glon.*; *Ipec.*; *Kreos.*; *Nicot.*; *Nux v.*; *Op.*; **Petrol.**; *Sep.*; *Staph.*; *Tab.*; *Ther.*

STOMACH, TYPE:

Acid, sour – *Ant. c.*; *Ars.*; *Bry.*; *Calad.*; *Calc. c.*; *Card. m.*; *Cham.*; *Ferr. m.*; *Ferr. p.*; *Iod.*; *Iris.*; *Kali c.*; *Lac d.*; *Lact. ac.*; *Lyt.*; *Mag. c.*; *Nat. s.*; *Nux v.*; *Puls.*; *Robin.*; *Sul.*; *Sul. Ac.*

Bilious (green, yellow) – *Acon.*; *Eth.*; *Ant. c.*; *Ant. t.*; *Ars.*; *Bell.*; *Bry.*; *Carb. ac.*; *Card. m.*; *Cham.*; *Chel.*; *Crot.*; *Eup. arom.*; *Exp. Perf.*; *Grat.*; *Ipec.*; *Iris.*; *Kali c.*; *Lept.*; *Nux v.*; *Nyctanth.*; *Petrol.*; *Pod.*; *Puls.*; *Robin.*; *Sang.*; *Sep.*; *Tart. ac.*

With nausea – *Eth.*; *Amyg. pers.*; *Ant. t.*; *Bry.*; **Ipec.**; *Iris.*; *Lob. infl.*; **Nux v.**; *Petrol.*; *Puls.*; *Sang.*; *Symphor.*; *Ver. a.*

relief symptoms – **Ant. t.**; *Puls.*

relief from uncovering abdomen; in fresh open air – *Tab.*

salivation – *Graph.*; *Ign.*; *Ipec.*; *Iris.*; *Kreos.*; *Lact. ac.*; *Lob. infl.*; *Puls.*; *Tab.*

tongue clean – *Cina*; *Dig.*; *Ipec.*

vertigo – *Cocc.*; *Ign.*; *Nux v.*; **Tab.**

VERTIGO

DESCENDING, on: **Bor.**, *coff.*, *con.*, **Ferr.**, *gels.*, *mag-m.*, *merl.*, *sanic.*, *stann.*

MOTION, from

vomiting and nausea: *Selen.*, **Ther.**

RIDING, while: *Ant-t.*, *dig.*, *grat.*

in a carriage: *Acon.*, *calc.*, *hep.*, *lyc.*, *sel.*, *sil.*

amel: Glon., sil.

horseback, while: Corp., rhus-t

amel: Tarent.

as from, in a carriage: Cycl., ferr., grat., hep.

WEAKNESS

riding, from: Anac., *aur.*, ph-ac., plb., *samb.*

WEAKNESS; walking, from –

riding, after: **Petr.**^{28 & 29}

MATERIALS AND METHODS

The present study consisted 30 patients of Motion sickness who attended the O.P.D. at A.M. Shaikh Homeopathic medical college and Hospital, Belgaum and O.P.D. of village camps, during the period of April 2006 – September 2007. The 30 cases of Motion sickness were selected on the basis of inclusion criteria. The subjects taken for the study were considered on the basis of simple random sampling to test the Experimental Hypothesis, which establishes a positive or negative relationship.

Patients who were known cases of Motion sickness and whose symptoms of motion sickness get provoked during traveling and patients of all age groups irrespective of their sex and occupation were selected for the study. After selecting the samples the case taking was done keeping the holistic and individualistic concept in mind to ascertain homoeopathic totality for prescription of similimum.

The characteristic symptoms of the patients were recorded and PQRS, general (mental and physical) and characteristic particular symptoms were given more importance.

Case-taking was done according to the scheme of model case proforma (Annexure-I) with a special emphasis to ascertain the following points.

a. Mode of presentation of the disease

All the symptoms presented by different patients have been recorded in every case in chronological order.

b. History of present complaints:

The details of the present complaints along with the onset, duration have been recorded with a questionnaire with special emphasis to the Sensations and modalities which provoke and excite pertaining to the present complaints along with concomitants.

c. Past history:

History of any similar complaints and their treatment was recorded. Any other complaints were recorded in chronological order with the nature, treatment and results of treatment to understand the miasmatic cleavage.

d. Family history:

Detailed family history was taken to find the incidence of similar complaints in the paternal and maternal side or any other acute/chronic diseases in the family to evaluate the miasmatic background inherited in the family.

e. Personal history:

As Homoeopathy treats the patient and not the disease in the patient, for constitutional prescribing all the generalities of the patient, to relate the patient as a whole were recorded with a special emphasis to physical built, thermals seasonal and atmospheric, diurnal and postural modalities. Mental relations, aversions and desires, aggravation with food and food habits, appetite, thirst, bowel movement, perspiration, sleep, dreams, female's menstrual history, mental reactions, findings of observation and examination.

f. General physical examinations:

A general physical examination of the patient to ascertain the vital parameters and basic data of the patient was done in all cases. The positive findings of built, nourishment and vital data were recorded and all other details to assess the miasm of the Individual.

g. Systemic examinations:

The positive findings were noted.

h. Investigations:

No specific investigation is available to diagnose Motion sickness as it is clinically diagnosed. However there are many battery of investigative procedures for the dizziness and vertigo secondary to other than motion sickness. Audiometry, Recruitment test to tell pressure changes in the balancing system and Refraction test. However

1. Blood routine: Hb%, T.C., D.C., E.S.R. was carried out in most the cases

2. Urine routine: For sugar, albumin and microscopic examination of the urine sample was carried out in many cases.

Where ever necessary in order to asses the well being ness of the patients.

i. Diagnosis:

Motion sickness is diagnosed based on a description of the symptoms and the circumstances in which they occur. Laboratory tests are generally not necessary to establish a diagnosis of motion sickness.

Diagnosis of Motion Sickness cases were made on the following points,

- a) Clinical Presentation as per the case history.
- b) The cardinal symptom of motion sickness is nausea, with the three cardinal signs being pallor, sweating and vomiting
- c) In addition to the cardinal symptom and signs, there are a large number of associated or additional signs and symptoms. It is this latter group that tends to be highly variable in their intensity, time course and frequency of presentation in a given population of motion sick individuals. These associated symptoms and signs include increased salivation, thirst, epigastric discomfort (“stomach awareness”), feeling of bodily warmth, drowsiness, dizziness, apathy, depression, and general malaise, loss of motor coordination, hyperventilation and increased somnolence.

j. General management:

All cases were advised invariably to stop any other treatment.

For those who do find themselves exposed to motion stimuli that are likely to induce sickness, there are a number of simple measure that are of benefit in preventing, or at least delaying, the onset of symptoms. These may be summarized as follows:

Patients were told to reserve seats where motion is felt least and escape motion sickness by planning ahead:

- Avoid certain types of travel that are triggers of motion sickness.
- Light meal an hour before travel.
- Avoid eating during the journey.
- Avoid poorly ventilated areas.
- Seek fresh air during the journey.
- Watch the horizon.

- Get involved in a task which occupies the mind and minimizes introspection; optimally, be in control of the vehicle; Not reading while traveling.
- Not drink alcoholic beverages and not to smoke (both can aggravate nausea).

Breathing Techniques:

In the study of 30 people with motion sickness, those who were instructed to take slow, deep breaths had a significant reduction in symptoms of motion sickness compared to those who breathed normally or counted their breaths.

Steps for Homoeopathic Prescription:

- a.** The cases were analyzed and evaluated according to Kentain method.

To aid in the selection of a suitable remedy repertorization was done in all the cases.

- b.** Kent's repertory was used where prime importance was given to:

1. Mental generals ,Physical generals (including modalities)
2. Characteristic particulars were considered.

c. Miasmatic diagnosis:

Miasmatic diagnosis is done on the basis of totality of symptoms, past history, family history.

d. Selection of remedy:

Selection of remedy was done on the basis of repertorial result, characteristic symptoms and miasmatic diagnosis of the patient. With the knowledge of Materia Medica constitutional remedy was selected by the end results of repertorization.

e. Constitutional medicines:

Ghatak states, "The difference between acute and chronic prescription is that in chronic, the medicine has to be miasmatic while in acute it need not to be so. The medicine indicated by the totality of the symptoms of the miasm predominant will have to be selected and not the medicine indicated by the totality of the symptoms of the whole case. In brief the prescription must be miasmatic.

f. Potency and repetition:

Indicated remedy was prescribed in 200th potency in the beginning. It was repeated depending on the severity of the complaints. Higher potencies were administered after the first potencies to give relief depending upon the merit of the case.

All the cases were reviewed once in 15 days for the 2 months, after the journey and were told to report the changes, then once in 15 days for the remaining period of study or as per the demand of the case and the progress was recorded.

The following parameters were fixed according to the type of response obtained after treatment and these criteria should be fulfilled for at least 6-12 months.

A) **Improved:** Feeling of mental and physical well being along with disappearance of old symptoms and considerable reduction in frequency of the existing episodes. Subject showed remarkable positive response to the treatment and the journey period was comfortable and enjoyable for a considerable period.

B) **Not Improved:** No response, no reduction in frequency of the episodes and patients continued to suffer from symptoms of motion sickness after exposure to triggering factors even after defined period of treatment.

The findings were then tabulated and analyzed.

OBSERVATION AND RESULTS

AGE INCIDENCE:

This shows the age incidence. The idea of such statistical approach is to identify the age group with the highest incidence. As shown in the chart the maximum incidence was in age group 20-40 years. That is 70 % cases. Followed closely by the age group 1-20 years that is 20% cases followed by patient as observed in the age group above 40 years and more that is 10 %.

SEX INCIDENCE:

Through this the incidence of the sex in which the disease is more prominent is known from the data ,we can infer that out of the 30 cases, 7 were males that is 23.33% of total no. of cases and 23 were females that is 76.77 % of the total no. of cases. Ratio is Male: Female is 1:3.

ACUTE REMEDIES:

From the tabulation (vide annexure charts, tables etc.) it is seen that these cases received Cocc. Ind in 11 cases, Ipecac in 4 cases, Nux vom in 7 cases and Petroleum in 8 cases.

CHRONIC REMEDIES:

As per the observation the following remedies were indicated for motion sickness.

Remedy indicated - Number of Cases

Arsenicum alb	-	2
Graphites	-	3
Kali-Carb	-	5
Lycopodium	-	2
Nitric-Acid	-	2
Pulsatilla	-	4
Platina	-	2
Sepia	-	5
Tabaccum	-	2
Tuberculinum	-	3

MIASMATIC BACKGROUND

The statistical study is done to show the incidence of miasmatic background involved. There results are given in percentage. The tabulation shows Psoric background in maximum cases that is 26 out of 30 cases i.e.86.66% Sycosis -2 i.e. 6.67% and Psoro –Sycotic is 2 i.e. 6.67 %.

RESULTS OF TREATMENT:

In this study it was seen that 27cases i.e.90% showed improvement with Homoeopathic treatment and 3 cases i.e. 10% failed to show any improvement.

STATISTICAL STUDY

Test whether Homoeopathic treatment is effective in motion sickness of 30 cases of age group 4 – 61 years.

Symptoms noted commonly in all 30 cases:

1) Nausea (2) Vomiting (3) Giddiness (4) Headache (5) Perspiration (6) Blurring of Vision.

Sl.No	Name of the Patient	Age	No. of Symptoms Before Treatment(X_1)	No. of Symptoms Seen After Treatment(X_2)	Change (X)	$d = x - \bar{x}$	d^2
1	Mrs. ABC	27	6	4	2	0.83	0.69
2	Mr. HNT	29	6	5	1	-0.17	0.03
3	Mrs.VNM	50	6	5	1	-0.17	0.03
4	Mr. RG	61	6	6	Not improved	4.83	
5	Ms. ST	22	6	5	1	-0.17	0.03
6	Mr. JKB	23	6	5	1	-0.17	0.03
7	Ms. MVV	4	6	5	1	-0.17	0.03
8	Mr. AK	13	6	3	3	1.83	3.35
9	Ms. CBK	24	6	5	1	-0.17	0.03
10	Ms. PK	20	6	6	Not improved	4.83	
11	Mrs. MHM	29	6	5	1	-0.17	0.03
12	Mrs. TG	30	6	5	1	-0.17	0.03
13	Ms. AM	16	6	5	1	-0.17	0.03
14	Mrs. SLY	54	6	5	1	-0.17	0.03
15	Mrs. LB	32	6	5	1	-0.17	0.03

16	Mr. MGM	22	6	5	1	-0.17	0.03
17	Ms. AB	15	6	5	1	-0.17	0.03
18	Ms. RK	21	6	4	2	0.83	0.69
19	Mr. AR	16	6	4	2	0.83	0.69
20	Mrs. MJI	37	6	5	1	-0.17	0.03
21	Ms. TPN	22	6	5	1	-0.17	0.03
22	Ms. AAD	23	6	4	2	0.83	0.69
23	Ms. SKW	20	6	5	1	-0.17	0.03
24	Ms. SM	23	6	4	2	0.83	0.69
25	Mr. PM	13	6	5	1	-0.17	0.03
26	Ms. SL	22	6	6	Not improved	4.83	
27	Ms. JSD	22	6	4	2	0.83	0.69
28	Ms. VAM	20	6	5	1	-0.17	0.03
29	Ms. FY	22	6	5	1	-0.17	0.03
30	Mrs. KML	35	6	5	1	-0.17	0.03
					X = 35		Ed ² = 8.09

No. of Patient = 30, i.e n = 30, x = 35, $\bar{X} = \frac{x}{n} = \frac{35}{30}$, $\bar{X} = 1.17$, $d = x - \bar{x}$, $Ed^2 = 8.09$ i.e .Ed² = 9

0.69 x 6 = 4.14 27 cases Improved 03 cases Not Improved

3.35 x 1 = 3.35

0.03 x 20 = 0.60

8.09

The Statistical test used is **Paired 't' test**, which is an important test amongst the several tests of significance developed by statisticians.

The study was subjected to Paired 't' test to establish the positive or negative relationship between the efficacy of Homoeopathy in the treatment of motion sickness.

Calculation:

Step (1) Formulation of Experimental Hypothesis:

There is negative relationship between the efficacy of Homoeopathic medicine and Motion Sickness. $\bar{X} = \mu$

Step (2) Level of Significance at 5% - Experimental Hypothesis is tested

Statistical Test applied: **Paired 't' test**

Step (3) Calculation of 't' value = $\bar{X} = \frac{x}{n}$ $x = 35$ $n = 30$ $\bar{X} = \frac{35}{30}$

X_1 = Before treatment $d = x - \bar{x}$

X_2 = After treatment $Ed^2 = 9$

$$SD = \sqrt{\frac{Ed^2}{n-1}} = \sqrt{\frac{9}{30-1}} = \sqrt{\frac{9}{29}} = 0.55$$

$$SE = \frac{SD}{\sqrt{n}} = \frac{0.55}{\sqrt{30}} = \frac{0.55}{5.48} = 0.10$$

$$t = \frac{\bar{X} - 0}{SE}$$

0 = Clear improvement shows zero base

$$t = \frac{1.17 - 0}{0.10} = \frac{1.17}{0.10} = 11.7$$

Step (4) At 5% level of significance degree of freedom, $n - 1$, $n = 30$ No. of Patients

$$= 30 - 1 = 29$$

Step (5) Inference:-

At 5% level of significant and at 29 degree of freedom table value of 't' is 2.045. But the calculated value of 't' is 11.7, i.e. It is more then the table value of 't' and this does not support the experimental hypothesis.

Conclusion: There is significant positive relationship between the efficacy of Homoeopathic medicine in the treatment of Motion Sickness, i.e. Homoeopathic medicines are effective in the treatment of Motion Sickness.

DISCUSSION

Motion sickness is one of the most common ENT problems seeking attention of several ENT specialists. The results of management by various system of medication have been not satisfactory. The Allopathic medication has been the commonest measure but has its own bad effects and relapses are seen invariably in all the cases after stopping the medication.

The present study was carried out in 30 cases, those fitted into the inclusion criteria, to study the efficacy of homoeopathy in the management of this condition.

1. AGE INCIDENCE:

Highest incidence was seen in the age group of 20-40 years the eldest among the patients was 61 years old the younger was 4 year old.

2. SEX INCIDENCE:

From the study it was observed that Females were found to be suffering more than Males. Of total 30 cases 23 were Females and 7 cases were Males. Male: Female ratio is 1:3 This corroborates the fact that, Females are more prone than Males.

3. VARIOUS CLINICAL PRESENTATIONS:

It is evident from the study that the various clinical presentation of motion sickness is with the acute exaggeration that is 43.33% (13) cases closely followed by chronic presentation in 56.66% (17) cases.

4. ACUTE AND CHRONIC REMEDIES:

From the study it is seen that cases received Nux vomica (7), Cocc. Ind(11) , Petroleum(8)and Ipecacuanha(4) cases as acute remedies, and Ars alb(2)Graphites(3), Kali carb(5), Lycopodium(2), Nitric acid(2), Platina(2), Pulsatilla(4), Sepia(5), Tabaccum(2), Tuberculinum(3) cases as chronic remedies.

5. INDICATED REMEDIES:

Nux vomica, Cocc. Ind, Petroleum and Ipecacuanha were indicated as acute remedies and Ars alb, Graphites, Kali carb, Lycopodium, Nitric acid, Platina, Pulsatilla, Sepia, Tabaccum, Tuberculinum were given as chronic remedies in all the 30 cases.

Dr. Benerjee says “The difference between acute and chronic prescription is that, in chronic the medicine has to be miasmatic while in acute it need not be so. The medicine is indicated by the totality of symptoms of the miasm predominant will have to be selected and not the medicine indicated by the totality of mere symptom of whole case. In brief the prescription must be miasmatic”.

6. MIASMATIC BACKGROUND:

It was observed that it is Psoric background in the maximum cases that is 26 out of 30 cases that is 86.66%; followed by Sycotic background in 6.66% (2) cases and then followed by Psoro-sycotic background in 6.66% (2) cases.

As the individual develops from embryonic stage to death so does his predisposition to disease goes on developing, due to its genetic cause, controlled, guided and modulated by the miasmatic cause inherited as well as acquired, causing various changes from innermost symptom to outermost symptoms.

7. POTENCIES USED:

It was observed that the potencies varied from 200 to 1 M, 10 M as per the demand of the case.

8. RESULT OF TREATMENT: The conventional treatment aims in only treating the symptom rather than removing the tendency to get it, i.e. the disease is either maintained or pushed back into the organism and to complicate the condition. But in this study, the individual was

considered as a whole. And the whole individual was treated rather than treating his disease or symptom. Holistic approach was carried out. Hence, the internal being has to be assessed and in the present study the patient was treated as a whole by dynamic internal homoeopathic medications.

In the present study efforts were made to make the journey period of the patients more enjoyable, pleasurable, symptom free. Hence, on the basis of the above discussed points we can conclude that the homoeopathic management in motion sickness has a good scope and it is efficacious. The study was worked out using **Paired 't' test** a statistical method, which again shows the efficiency of Homoeopathy in the management of Motion sickness.

With proper and scientific understanding of the Psoric background Motion sickness which is a debilitating, persisting, disturbing and non responsive condition can be managed successfully by Homoeopathic medication.

CONCLUSION

30 different cases of motion sickness of either sexes ranging from 4-61 years, which satisfied the inclusion and exclusion criteria, were considered to study the response of Homoeopathic treatment in motion sickness.

1. The most common age group suffering from motion sickness was found to be between 20-40 Years.
2. Females were found to be more prone to suffer from motion sickness. Male to Female ratio was: 1:3
3. The most common symptoms of motion sickness observed were nausea, vomiting, giddiness, sweating, blurring of vision and a sense of feeling unwell.
4. It has been a common problem in people traveling by Bus and Car.
5. Commonly seen aggravating factors were found to be Fear, anxiety, and poor ventilation and smell of petrol, over crowding during traveling in Bus which increase the likelihood of experiencing motion sickness.
6. Common family history was Motion Sickness.

8.The miasmatic background in 86.66% of cases was found to be Psora. Hence, it can be stated that mostly in Motion sickness PSORA is the dominant miasm.

9. Most of the cases had consulted ENT specialists and were on Allopathic medication, withdrawal of which the patient used to get the same symptom of motion sickness every time on traveling. But with homoeopathic medication in 4-5 weeks the patients did not use any allopathic drugs and felt completely better each time they were traveling.

10. Cocc-Indicus, Ipecac, Nux vom, Petroleum, were acute remedies prescribed in this study.

11. The potencies of all the remedies used ranged from 200 to 10 M as per the need of the case but 200 potency was the most commonly used potency.

12. Miasmatically it is mainly a PSORIC condition because Hypersensitiveness of labyrinth of the Ear and always presents with Nausea, Vomiting, Giddiness, Vertigo, and intolerance to motion, conflicting signals between ear and eye, brain are always PSORIC.

13. Most of the cases have totally responded to a set of drugs Coc-Indicus, Ipecacuanha, Nux vomica, Petroleum, followed by Ars alb ,Graphites, Kali carb, Lycopodium, Nitric acid, Pulsatilla, Sepia, Tabaccum and Tuberculinum .

14. The scope of Homoeopathic medicine is significant in giving relief to patients suffering from Motion sickness as it is confirmed by systematic, scientific and a detailed study based on Homoeopathic principles.

15. This study was conducted with limited subjects and for limited time duration. A more comprehensive study comprising of more subjects, different professionals with different modes of travel and spread over a longer duration is needed to follow-up on the results of this study.

I would like to quote a frequently quoted epigram “**Homoeopathy does not treat diseases. It treats patients.**” In one word it is nothing but individualization. Homoeopathy recognizes the individuality of each patient or cause. It recognizes the fact that no two patients even with the same disease are exactly alike and maintains that a true science of therapeutics must enable the practitioner to recognize these differences and find the needed remedy for each individual. Dr. Hahnemann has emphasized the concept of constitutional treatment and he concluded that the

fundamental cause of disease in miasmatic in nature. Similar is the case with motion sickness too. Hence, in the treatment of motion sickness if proper homoeopathic treatment is instituted in time then worsening of the condition can be arrested. The disorder is one of the most disturbing problems for travelers. There are so many treatments available but are not effective and not patient friendly as the treatment employed is not in-cooperation of the whole individual but considering the patient as separate entity. The cases in this study were treated on the basis of law of Similars with a suitable homoeopathic remedy.

In motion sickness as the disease is expressed through Nausea, Vomiting, Giddiness, Vertigo, and Sweating, it doesn't mean that treating it symptomatically shall remove the disease. The totality of symptom is to be considered. Homoeopathy believes in wholistic and individualistic approach. Patient is to be treated as a whole and not his disease totality. Disease lies within the man and the symptom and pathology involved are only the end products of the diseases, so treating the patient as a whole will cure the patient. The disease has to be cured from within by dynamic medicines by bringing back the deviated vital force to normalcy with the help of Homoeopathic medications.

Homoeopathic medicines along with the general management are found to be highly efficacious in the management and treatment of motion sickness, as majority number of patients was found to improve and hence a positive relationship is established in the study conducted to test the experimental hypothesis. It was seen that the frequency, severity and recurrences of complaints of motion sickness were reduced through Homoeopathic management thus improving the quality of life of individual while traveling mentally and physically.

The general preventive measures are as follows:

1. Occupy a position aboard the bus or car close to its center of gravity in order to minimize the intensity of motion stimuli.
2. Minimize unnecessary head movements; this is facilitated by the provision of head support and good body restraint, and may be further aided by a reclined or supine position.
3. Take up a position in which there is a good view forward of a stable external visual reference, such as the horizon when aboard bus or car.
4. If deprived of an external visual reference, close the eyes to reduce visual-vestibular conflict.
5. Be involved in a task which occupies the mind and minimizes introspection; optimally, be in control of the vehicle;

Studying motion sickness with miasmatic background, its treatment with Homoeopathy not only helps in understanding the further progression and worsening of the condition but also reduces the emotional and psychological impact caused due to motion sickness and makes the patient travel with comfort, enjoyment and pleasure and no more embarrassment. The proper Homoeopathic medicine taken at the right time can increase resistance to motion sickness and assure a pleasant journey in place of a traumatic experience.

Having done my studies strictly according Hahnemannian principles and having the **Paired ‘t’ test** to support the statistical findings it is with a lot of confidence I say that Homoeopathy is very effective in the treatment of Motion sickness

Hence now most of the motion sickness sufferers need no longer face frustration as Homoeopathy has come for their relief. **“HAIL HOMOEOPATHY”**

SUMMARY

Motion sickness is a common experience for many people involving almost all forms of transport, including aviation. It is one of the more humbling experiences of travel, be it on a bus, car, train, boat or plain whatever and suddenly turning green, sweaty, becoming nauseated and developing an uncomfortable urge to throw up due to *i) over stimulation of vestibular apparatus* *ii) Conflicts of the sensory inputs thus in motion sickness there is lack of accord between information brought by the vestibular apparatus and by the visual apparatus, to the brain* and is one of the most common problems seeking attention of several ENT specialists. The results of management by various system of medication have been not satisfactory. The Allopathic medication has been the commonest measure but has its own bad effects and relapses are seen invariably in all the cases after stopping the medication.

In my humble attempt to treat patients with motion sickness I have been quite successful because I worked keeping in mind the ‘Universal truth’, the universal truth which Dr. Hahnemann propagated i.e., every individual is a different individual and the animated body or organism is ultimately governed by the life force.

Most of the cases had consulted ENT specialists and were on Allopathic medication, withdrawal of which the patient used to get the same symptom of motion sickness every time on traveling. But with homoeopathic medication in 4-5 weeks the patients did not use any allopathic drugs and felt completely better each time they were traveling. The scope of Homoeopathic medicine is significant in giving relief to patients suffering from Motion sickness. Homoeopathic medicines along with the general management are found to be highly efficacious in the management and treatment of motion sickness, as majority number of patients was found to improve and hence a positive relationship is established in the study conducted to test the experimental hypothesis by

applying **paired ‘t’ test**. It was seen that the frequency, severity and recurrences of complaints of motion sickness were reduced through Homoeopathic management thus improving the quality of life of individual while traveling mentally and physically.

Studying motion sickness with miasmatic background, its treatment with Homoeopathy not only helps in understanding the further progression and worsening of the condition but also reduces the emotional and psychological impact caused due to motion sickness and makes the patient travel with comfort, enjoyment and pleasure and no more embarrassment. In the Homoeopathic Materia medica we find many remedies indicated for motion sickness and many rubrics are found in repertories which are very useful in selection of remedies. The proper Homoeopathic medicine taken at the right time can increase resistance to motion sickness and assure a pleasant journey in place of a traumatic experience. Homoeopathy offers a long term healing of a person due to its individualistic and wholistic approach. Hence now most of the motion sickness sufferers need no longer face frustration as Homoeopathy has come for their relief.

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CASE TAKING PROFORMA.

For the treatment of cases of Motion Sickness under the guidance of

Dr. M. A. Udachankar Professor and Guide. Department of Materia

Medica. Doctor In charge: Dr. Ashokkumar Dantkale

In Service PG

Sl. No.	O.P.D. No.	I.P.D. No.
NAME OF THE PATIENT:		
AGE:	SEX:	RELIGION:

MARITAL STATUS:

OCCUPATION:

ADDRESS:

DOA:

DOD:

DIAGNOSIS:

MIASMATIC ASSESSMENT:

REMEDY:

ACUTE:

CONSTITUTIONAL:

RESULTS: IMPROVED/NOT IMPROVED

SIGNATURE OF GUIDE:

PRESENTING COMPLAINTS WITH ONSET AND DURATION:

DETAILS OF PRESENT COMPLAINTS:

(The complaint, duration, onset, the probable cause and any modalities in the patient's opinion.)

A) Please answer these questions about your Motion sickness Problem.

- 1) When did the complaint start first?
- 2) Did the complaint start suddenly or gradually?
- 3) Describe your first stack of Motion sickness?
- 4) Is the problem of dizziness due to motion sickness constant or does it come in attacks?
- 5) Overall has the motion sickness problem gotten better or worse with every journey?
- 6) Describe the complaints due to motion sickness?
- 7) Do any other symptoms occur simultaneously with dizziness such as nausea vomiting? Vertigo? Please explain.
- 8) When was your last attack?
- 9) Describe your last attack of motion sickness?
- 10) How often do the attacks of motion sickness occur?
- 11) How long do the motion sicknesses attacks last?
- 12) List anything that stops the attack of motion sickness or makes it better?
- 13) List anything that brings on an attack of motion sickness or makes it worse?
- 14) Are you completely free of motion sickness between the attacks or when not traveling?

15) Does the motion sickness symptom occur only in certain position? If YES, What positions? 16) Does the motion sickness occur only while traveling, standing, or walking or turning?

17) Does the motion sickness problem affect your balance or make you walk abnormally?

18) Have you ever fallen because of motion sickness problem? 19) Have you ever injured your head or neck?

20) Does stress have any relationship to the attack of motion sickness?

21) Do you faint, blackout or experience seizures with motion sickness attack?

22) Are you prone to motion sickness?

B) Please answer these questions about your hearing.

Check Yes or No & Circle which Ear, when necessary.

Yes No

1) Do you have any difficulty in hearing? Right Left Both

2) How long have you noticed the hearing loss?

Right ear _____

Left ear _____

3) Do you have any difficulty understanding what you hear?

Right Left Both

4) How long has had difficulty understanding?

Right ear _____

Left ear _____

5) Do you have any noises in your ears? Right Left Both

6) Is the noise constantly with you?

7) Does the noise occur only with dizziness?

8) Have you worked in a noisy environment or been exposed to loud noises?

C) Please answer these questions about your ears.

Check Yes or No & Circle which ear when necessary

Yes No

- 1) Do you have pain in your ears and /or drainage? Right Left Both
- 2) Have you had any surgery on your ears? Right Left Both
- 3) List the date of surgery, the reasons & the ear operated on.

D) Please check Yes, No & Circle the correct description of each symptom.

Yes No

- | | | |
|--|----------|-------------|
| 1) Blurred vision | constant | in episodes |
| 2) Double vision | constant | in episodes |
| 3) Numbness in hands and feet | constant | in episodes |
| 4) Weakness in arms or feet | constant | in episodes |
| 5) Numbness or tingling of mouth or face | constant | in episodes |
| 6) Confusion or lack of co-ordination | constant | in episodes |
| 7) Difficulty with speech | constant | in episodes |
| 8) Difficulty swallowing | constant | in episodes |
| 9) Do you get dizzy after every journey or travel? | | |
| 10) Do you get nausea, vomiting every time you travel? | | |
| 11) Do you get dizziness/ vertigo if you have not eaten for a long time? | | |
| 12) For Women: Is your dizziness connected with your menstrual | | |

cycle?

E) List all medications and the amounts that you are currently taking.

F) List any past injuries operations or chronic illnesses.

PAST HISTORY:

Disease suffered from	Approximate age	Duration	Whether completely recovered	Medicines taken	Remarks

Any extra remarks or information:

(Mention any drugs, tonics, stimulants that has been used by the patient at that time.)

FAMILY HISTORY:

List of illness	Relationship	Alive/Dead	Age	Cause of death	Any other particulars
Motion sickness					
VBI					
Head injury					
Any Ear or CNS disease					
Ménière's disease					
Anemia					
Mental diseases					
Asthma					
Hypertention					
Heart disease					
Any other					

PERSONAL HISTORY:

Diet:

Appetite:

Habits& Addiction:

Thirst:

Desires:

Aversions:

Micturition:

Bowels:

Respiration:

Sleep & Dreams:

Thermal state:

Menstrual Function:

FMP:

LMP:

Duration & Character:

Leucorrhoea:

Climacteric:

Pregnancy:

Labour & Puerperium:

General Modalities:

Mental& Emotional state:

LIFE SPACE INVESTIGATION:

GENERAL PHYSICAL EXAMINATION:

Built:

Nourishment:

Height:

Weight:

Pallor:

Icterus:

Cyanosis:

Oedema:

Tongue:

Glands:

VITAL SIGNS:

Temperature:

BP:

Pulse:

Respiratory rate:

SYSTEMIC EXAMINATION:

1) **CNS:**

2) **CVS:**

3) **GIT:**

4) **RS:**

5) **MISCELLANEOUS:**

a. Systems mainly affected

b. Main stages of patient's ill health as developed age-wise.

INVESTIGATIONS:

NOSOLOGICAL DIAGNOSIS:

REPERTORIAL ANALYSIS:

REMEDIAL ANALYSIS:

MIASMATIC ANALYSIS:

MIASMATIC DIAGNOSIS:

REMEDIAL DIAGNOSIS:

GENERAL MANAGEMENT:

AUXILLARY MEASURES:

HOMOEOPATHIC TREATMENT:

FOLLOW UP:

Statistical Graph showing Age Incidence

Statistical Graph showing Sex Incidence:

Statistical Graph showing Acute Remedies used:

Statistical Graph showing Chronic Remedies used:

Statistical Graph showing Results of treatment:

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