



Review Article

www.ijrap.net

(ISSN Online:2229-3566, ISSN Print:2277-4343)



UNDERSTANDING MOTION SICKNESS THROUGH AYURVEDA: A REVIEW

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Received on: 19/12/21 Accepted on: 25/01/22

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DOI: 10.7897/2277-4343.130241

ABSTRACT

In the present era, so many newly formed diseases are not explained in ayurvedic classics. Motion sickness is one such kind. It is a sick feeling triggered by movement. Anukta vyadhi siddhanta is one of the principles of the Ayurveda, which gives us the directions to understand the newly formed diseases. Unsaid diseases can be studied based on the etiological factors and their pathogenesis. Though Motion sickness is not explained in Ayurveda Samhita, our Samhitas has explained how to learn, diagnose and treat such diseases. In this article, an attempt has been made to apply the knowledge of Anukta vyadhi in the context of Motion sickness.

Keywords: Ayurveda, Motion Sickness, Anukta Vyadhi.

INTRODUCTION

In Ayurveda, great emphasis is laid upon maintaining health and treating the disease. The principles of Ayurveda are eternal, but its applications can be modified as per the timely changes in society. There is an ocean of clinical information in Ayurveda. There are several conditions where even modern science and medicine have some limitations. Profiling all the modern diseases by the ayurvedic researcher is essential.

MOTION SICKNESS

Motion sickness describes a set of autonomic symptoms caused by incongruent sensory impressions. It is the general term describing a group of common nausea syndrome originally attributed to motion-induced cerebral ischaemia, stimulation of abdominal organ afferents, stimulation of the vestibular organs of the inner ear. Seasickness, ear sickness and air sickness are commonly experienced. Motion sickness occurs when the brain cannot make sense of information sent from the eyes, ears and body. When the brain receives signals from motion-sensing parts such as the eyes, inner ears, muscles joints, when these send conflicting information brain does not know whether stationary or moving. Brain's confused reaction makes me feel sick.

Symptoms are - nausea, vomiting, dizziness, belching, headache, balance disorder, pallor, palpitations, cold sweats, inability to concentrate, rapid breathing and gulping of air.

The most critical motion sickness comes from the vestibular system, which then goes to the vestibular nuclei and from nuclei to the vomiting centre leading to nausea and vomiting, the cardinal features of motion sickness. Several neurotransmitters and neuromodulation have been shown to influence the activity

of vestibular nucleus neurons, such as acetylcholine, glutamate, GABA, histamine, norepinephrine, dopamine and serotonin etc. Catecholamines can play a role in the neurohumoral development of nausea and emesis. It has been hypothesised that adrenaline and noradrenaline remotes 5HT release from the gut peripherally, which could increase receptor sensitivity and facilitate emetogenic detection in the area of postrema.

In the present era, it is a common problem in people travelling by car, train, aeroplanes and especially boat anyone can get it. Still, it is more common in children, pregnant women, and people taking certain medicines. A thorough understanding of the concept of motion sickness will be helpful to take precautions, preventive measures, and proper treatment remedies.

As Motion Sickness is not mentioned directly in Ayurveda as a single disease entity, it can be understood by anukta vyadhi. Acharyas had a vision of forthcoming new diseases: hence they explained the concept to understand new diseases, i.e., principles to understand anukta vyadhi. Anukta means unsaid and unuttered¹ with specific reference to Ayurveda. The entity which is not directly or specifically mentioned in Ayurvedic texts is anukta. The concept of anukta is stated in the context of Atidesha tantrayukti².

The General Guidelines for Understanding Concept of Anukta Based on Existing Principles

The understanding, analysing and applying trisutras of Ayurveda viz. Hetu, Linga, Aushadha³- It is the need of the present era. This is applicable for new diseases and new drugs, and new formulations. To understand and appreciate the concept of anukta vyadhi, it is essential to consider basic concepts of Ayurveda viz. dosha, dhatu, mala vijñana, agni, srotas, ojas and manas.

Any new disease is understood based on the cluster of signs and symptoms and the underlying pathology derived from the dosha dushya sammurchana. Understanding a new disease through Ayurveda helps physicians plan the right treatment line.

Chakrapani comments that Atidesha tantrayukti (getting the knowledge of unsaid things) helps for clarification of hidden meaning and also derives the unsaid things. Acharyas have commented that a Vaidya need not be ashamed when he cannot name the disease; in fact, it is not necessary to know the exact nomenclature as that is not always possible. But it does not mean that one cannot diagnose such a condition⁴.

The following methodology can make a diagnosis:

Based on the causative factors.

Based on the group of lakshana.

Based on the concept of vikriti vijñana, i.e., dosha dhatu vrddhi, kshaya lakshanas, sroto dushti lakshanas, ama lakshanas etc.

Understanding The Motion Sickness Through the Concept of Sankara

Hetu Sankara

Motion sickness in Ayurveda cannot be compared to anyone disease entity or lakshana. Hence, keeping the available modern literature regarding the cause, pathogenesis and symptomology, motion sickness in Ayurveda can be interpreted. To facilitate this, all the known causes for motion sickness have been analysed under Hetu sankara⁵, the symptoms have been discussed under Linga sankara⁶.

There are many etiological factors leading to motion sickness. Under hetu sankara, hetus like yaana, Asatmya indriyarthasamyoga and Prajnaparadha have been analysed as causative factors of motion sickness.

Yaana (Motion)

Motion sickness is caused by movement in different directions, particularly when sitting or standing still in a moving vehicle, boat or plane. The mechanism and effect of yaana on shareera is explained in the context of Aturopadrava chikitsa⁷. Hence, the mechanism behind yaana on shareera could be understood and applied to understand motion sickness.

Asatmya Indriyarthasamyoga

In Ayurveda, trividha hetus are involved in the manifestation of diseases, among which asatmendriyarthasamyoga is one⁸. It can also happen when there is a loss of visual contact with the outside horizon or due to pressure changes in the ear during travel. These events may cause conflict in the balance centre present in the inner ear, leading to fatigue, nausea, dizziness, and vomiting. Ayurveda states this mismatch of senses as Asatmya indriyarthasamyoga, i.e., connection with the senses and the perceived information are mismatched and is not interpreted in the right way by buddhi tatwa (intellectual power).

This mismatch or conflict between the perception and interpretation by buddhi tatwa is also found in classics in the context of Dwishtarthaja chardi. Aversion developed by darshana, gandha, asvadana etc., leads to disturbance in the indriyarthasamyoga with manas resulting in chardi⁹. As chardi is the principle lakshana in motion sickness, the phenomenon in dwishtarthaja chardi could be considered that in motion sickness.

This kind of connection is described as of 3 types: Ayoga (no connection at all), Atiyoga (that is extreme indulgence) and Mithya yoga (imbalance /mismatch between the senses and the information). Here in the case of Motion sickness, the role of mithya yoga of Indriyarthasamyoga is more apt. Through these hetus, the mystery of motion sickness could be solved.

Prajnaparadha

When a person knows the particular environment (i.e. Travelling) or unfamiliar stimuli is the cause for the manifestation of symptoms of motion sickness even though these are intended to or get exposed, then due to Asatmya Indriyarthasamyoga leads to motion sickness. Hence Prajnaparadha also is a hetu for motion sickness.

To sum up – These three conditions contribute at different levels in causing motion sickness.

Linga Sankara

Motion sickness has a wide range of symptoms like vomiting, dizziness, nausea, cold sweats and other associated symptoms. Here, these four symptoms have been discussed and analysed through ayurvedic perspective.

Hrullasa (Nausea): Rasa dushtikara hetu and Kapha dushti hetu leads to the Hrullasa in motion sickness as a Lakshana.

Chardi (Vomiting): Chardi is a rasapradoshaja vikara, resulting from udana and vyana Vata vikruthi.

Bhrama (Dizziness): Vata pitta propaka hetu, along with the manasika dosha, raja dushti, leads to bhrama in motion sickness. Sweda pravrutthi (Cold sweats): Sweda does the function of kleda vahana. And sweda pravrutthi is carried out by samana Vata and vyana vata.

By analysing the references of these lakshanas, it could be deduced that the components of shareera involved and impaired in the above four lakshanas could be considered impaired in motion sickness. Hence, the probable components of shareera damaged in the disease motion sickness are – vyana Vata and Udana Vata.

Vyadhi Sankara

Though motion sickness is a group of symptoms per the above references, it can be considered a vyadhi and not just a Linga. Hence, motion sickness can be called a vyadhi and could be understood even as vyadhi sankara as a combination of chardi roga and Arochaka (roga)- hrullasa as anna vaha srotodushti¹⁰.

The udavarta samprapti could explain the theory of sensory conflict or mismatched signals. Udavarta, though a samprapti vishesha, is also a group of rogas, as this samprapti vishesha encroaches in itself many rogas. Based on the same samprapti of udavarta, motion sickness's pathology and symptomology could be explained.

The interpretation of the perceived information is made by the prana Vata in the buddhi tatwa (intellectual power). When there is dushti in prana vata, there can be sensory conflict or wrong interpretation of received information. This dushti in prana vata in context to motion sickness is by udavarta samprapti. Hence, this could be considered as a vyadhi or group of rogas.

Udavarta and Motion Sickness

Nidana sevana of udavarta
 Apana prakopa in pakwashaya
 Obstruction in adhoga srotas
 Vit-mutra-mala sanga
 Udavarta- urdha pravrutta vata

The wrong interpretation of the perceived information is due to prana dushti by udavarta. A person with this kha vaigunya, when

comes in contact with the dwishta atmosphere, gets symptoms of motion sickness by mithya idriyarthasamyoga.

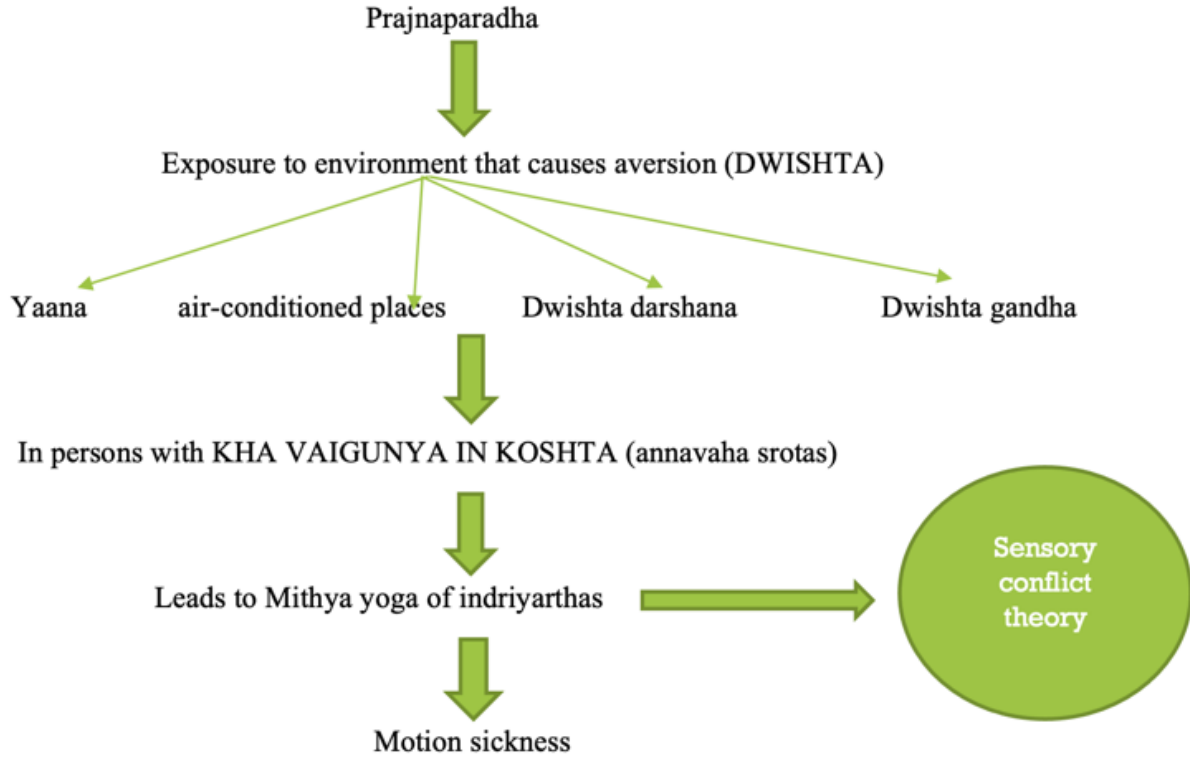
To sum up

The kha vaigunya and dushti in mahasrotas/koshta & beeja dushti are the main contributors.

The prajnaparadha and dwishta atmosphere are the exacerbating factors (vyanjaka hetu).

The asatmya indriyarthasamyoga is the final mechanism that triggers the symptom group in motion sickness.

Probable Samprapti for Motion Sickness



CONCLUSION

Thus, in Ayurveda, motion sickness is better understood by the concept of Anukta vyadhis, as Ayurveda does not directly mention it. By analysing the lakshanas, it could be deduced that the components of shareera impaired in the diseases motion sickness are Vyana Vata, Udanavata and Rasa dhatu. The asatmya indriyarthasamyoga is the final mechanism that triggers the symptom group in motion sickness. Based on the inference, motion sickness can be attributed to vyadhi sankara rather than comparing it to a single disease entity.

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Cite this article as:

Misriya KH *et al.* Understanding motion sickness through Ayurveda: A review. Int. J. Res. Ayurveda Pharm. 2022;13(2):77-80 <http://dx.doi.org/10.7897/2277-4343.130241>

Source of support: Nil, Conflict of interest: None Declared

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