

CONCEPT OF AIRBORNE DISEASE IN AYURVEDA- A REVIEW

Chiranjit Biswas¹, Supriyo Chaudhuri², Tapan Ghosh³

¹Lecturer, Department of Sanskrit Samhita & Siddhanta,

²Reader, Department of Sanskrit Samhita & Siddhanta,

³Professor, Department of Sanskrit Samhita & Siddhanta

J.B. Roy State Ayurvedic Medical College & Hospital, 170-172 Raja Dinendra Street, Kolkata-700004

Corresponding Author: biswaschiranjit33@gmail.com

<https://doi.org/10.46607/iamj0810042022>

(Published Online: April 2022)

Open Access

© International Ayurvedic Medical Journal, India

Article Received: 07/03/2022 - Peer Reviewed: 25/03/2022 - Accepted for Publication: 26/03/2022



ABSTRACT

Introduction: The fundamental ideas defined in *Ayurveda* are nonetheless the same as these days' scientific-technological knowledge. *Ayurveda* no longer has a specific text as epidemiology in the context of air-born epidemics, but the principles described in the headings of *Janapadodhwamsa*, *Maraka*, *Janmar*, *Aoupasargika Roga*, may be compiled, analyzed, and interpreted inside the consideration of the theories of air born epidemics. **Objectives:** An initial systematic literature review with the help of internet-based search engines revealed very negligible work in the field of *Ayurveda* and epidemiology in connection to air-born epidemics. Hence, an attempt was made to analyze various principles of *Ayurveda* relevant to epidemiology in concern to air-born epidemics and its proper interpretation and their contemporary significance. **Materials & Methods:** The present review study was carried out by collecting the literature and research findings from the various classical and modern textbooks, online reports, and research articles in Google Search and PubMed databases. Age-vintage practices of our ancestors and broadly accompanied by the principles which can be compared with the concepts of air-born epidemics. **Result:** In the process of theoretical analysis, the following concepts were found relevant, such as the concept of causation of disease, etiology of disease causes of air born epidemic, classification of disease, modes of communicable disease transmission, and natural history of the disease. **Conclusion:** In this study, an attempt has been made to understand these concepts in the light of air-born epidemics with their most approximate delineation

through *Ayurveda*. In connection to the airborne disease, it is to be mentioned that the tenets described centuries back are very much relevant and their importance is apprehended.

Keywords: Airborne disease, *Aoupasargika Roga*, Communicable Disease, *Janapadodhwansha*, Airborne epidemics.

INTRODUCTION

Human pursuit being furnished the preference to the property is specific through the enlightened course of *Ayurveda*. Manifestation of inauspiciousness was intended through sinful acts from the very start of creation [1]. With the progress of each Decade, the reverent customs and traits of mankind got decreased in successive quarters. In this manner, prorogation is confronted by way of the whole advent. In every transit of 1/one hundredth of the decade, the lifestyles span of the person gets dwindled with the aid of one year from the specific span to the applicable age [2]. *Ayurveda* miles a comprehensive approach to fitness and homeostasis that consists of body, thoughts, emotions, spirit, and surroundings employing emphasis on hygiene, social hygiene, and environmental hygiene. All psycho-somatic maladies in terms of miseries being manifested by way of the lack of awareness whilst right understanding results in happiness of each body and mind indeed present commands for the useful acts of present and destiny lifestyles might not be perceived without right knowledge [3]. Perhaps the sinful acts commenced during the present and previous life both are intimate factors for the vitiation of *Vyau* (Air), *Jala* (Water), *Desha* (Soil and location), and *Kaala* (Time). The citation is remarkable for their conspicuousness and the manifestation of seasonal alteration has also been mentioned in accordance to indicate the intimate factors [4]. Elaboration about handling epidemics template as *Janapadodhwamsha* because of polluting air, water, or land. In addition explains the role of *Vayu* (Air), *Jala* (Water), *Desha* (Soil and Location), and *Kaala* (Time) are the factors liable for *Janapadodhwansha* or related to the term epidemics. It includes the infectious disorder and narrates infection of bodily, chemical & natural factors in the prevalence of ailment. In modern medical science, distinctive description has been men-

tioned for endemic, epidemic, and pandemic depending upon the degree of intensity including outbreak [5]. Epidemic confers with the prevalence of more instances of disease than anticipated in a given area or among a selected institution of people over a specific duration in exclusive value. The outbreak is associated with nearby prevalence and a pandemic is related to a wider occurrence consisting of several international locations or continents [6]. According to the Centers for Disease Control and Prevention (CDC) Trusted Source, airborne diseases can unfold thru an instantaneous or an oblique form of transmission, relying on the pathogen concerned. The pathogens may additionally enter the air in wet droplets, for an instance, while someone breathes or sneezes. There, they will be suspended within the air, and a few droplets dry out, leaving microscopic pathogens. Even as suspended inside the air, those particles can connect to or input the body systems of human beings nearby [7]. This is the most scientific era in correlation to the modern air-born epidemics with disease mentioned under the section of altered characteristics of *Vayu* in context to *Janapadodhwamsha* and other relevant texts where those diseases are mentioned.

Materials & Methods:

A preliminary systematic literature review via the assistance of internet based search engines revealed very negligible work within the field of *Ayurveda* and epidemiology in connection to air-born epidemics. Hence, a try turned into made to analyze various concepts of *Ayurveda* applicable to epidemiology in problem air-born epidemics and its right interpretation and their cutting-edge importance. The prevailing review observes achieved via collecting the literature and studies findings from numerous classical and cutting-edge textual content e-books, online reports,

and studies articles in Google search and PubMed database.

Causative factor of Air born epidemics:

Relying on the type of pathogen, the degree of exposure, and character elements, the airborne microorganism may also motivate contamination to develop if exposure takes place. Many diseases can get up after exposure to airborne particles, together right with some traits that droplet residuals might also have been persisting. The transmission of airborne pathogens has varying capabilities. Airborne diseases can travel distances greater than 6 feet and remain infectious in the air from minutes to hours. This largely depends on the type of ventilation and preventative measures inside the building.^[8] Comparison between the description of causative factors given in *Charaka Samhita*^[9] as well as modern science has been furnished in the following manner:

Ritu-Vaishama: It refers Alteration or complete absence of specific characteristic features of *Vayu* in respect of specific seasons resulting in air pollution and its consequences like Global warming. These mal characteristics of *Vayu* may interfere with the structure and stability of the pathogen.^[10]

Ati Stimita: It is indicative of very stagnant air where the indoor locations have improper ventilation which keeps the bacteria and viruses in a compact space and these types of stagnant air encourage airborne diseases to spread rapidly.^[11]

Atichala: It refers to very high-speed wind flow that affects the ventilation. It is recognized as an important factor influencing the transmission of airborne diseases. The inference of the mechanism of dispersion of airborne droplets known as droplet nuclei depends upon the space, the risk estimation of airborne infection, the role of airflow rate, the impact of airflow pattern, etc. Pathogen-laden droplets, which are expelled into the air while a patient sneezes, coughs, speaks, sings, or simply breathes, subsequently dry out in the air and produce droplet nuclei, the fine particles that can suspend in the air.^[12]

Ati Abhishyandi: It refers to very moist air or air mixed with aerosols which include the droplet nuclei with an aerodynamic diameter of 10 µm or less, typi-

cally produced through the process of rapid desiccation of exhaled respiratory droplets. Strong ambient air crossflows such as large droplets may act as aerosols with the potential to transmit infection.^[13]

Ati Rukshya: It suggests the very dry air has low relative humidity. Whilst the relative humidity drops by approximately 40%, the air feels dry to pores and skin. If very low relative humidity persists it can make the pores and skin dry, lips chapped, and may put greater static inside the air. In some instances, air will be called dry even when the out of door relative humidity is high however the dew factor (the temperature at which air can preserve no extra water) is low. This is because even supposing the air has an excessive relative humidity of 90% outside, once that air is introduced inside and heated the relative humidity will lower substantially. In situations in which the dew factors are low outdoor (much less than around 32 F) that air will regularly be known as dry through weather forecasters especially if the skies are clear.^[13]

Ati Parusha: Extremely dry air, containing the least amount of water vapors and it may cause rapid spread of airborne pathogens.^[14]

Ati Sheeta: Very cool air may also intervene with the airway harm, however usually not because of the direct effect of temperature fall. It moreover relies upon hyperventilation. Cooling of the airways is better by way of increasing the airflow in the airways. Consequently, hyperpnoea of temperate air stocks comparable effects to the inhalation of bloodless air. Very cool air may interfere with the airway damage affecting the airway surface fluid, but always not due to the direct effect of temperature fall.^[15]

Ati Ushna: It considers very hot air. The temperature and relative humidity have an impact on pathogen viability. Combos of temperature and relative humidity to reduce airborne infection danger. A part of the issue is the lack of know-how for aerosolized pathogen survival conducted in various environmental conditions. Also, a few environmental situations are against human comfort or the healing approach.^[16]

Ati Rukshoshna/ Ati Abhishyandi-ushna: It refers to very dry and hot/ moist and hot air. Dry tropical (DT) and moist tropical plus (MT+) weathers bring about a fourfold and twofold expanded prevalence of an excessive pollution occasion (top 5 % of pollution concentrations at some stage in the 28 years).^[13]

Ati Bhairava Ati Pratihataraspargati, Ati Kundalinam: It refers to the wind with a big uproar and severe pace. Cyclones natural differences in wind speed and path over one-of-a-kind heights inside the environment, referred to as 'wind shear', normally preserve cyclones in taking a look at -efficaciously tearing the storms apart in advance than they attain a fine length. However, emissions from assets along with biomass burning and diesel cars have interfered with wind patterns, reducing wind shear and permitting cyclones to expand twice as extreme, in keeping with an examination published in Nature.^[14]

Asatmyagandha-bashpa-siktapanshu-dhumaupahata: It refers to air with stressful scent/ vapors/ dust/ smoke. Air containing gases, dirt, smoke from fires or fumes, aerosols, or high-quality particulate depends on the amount in dangerous portions which might also moreover reason 'sun is dimming', as noted above. Air pollution may be caused by the air which contains gases, dirt, smoke from fires, or fumes in risky quantities. Tiny atmospheric debris - aerosols - is a subset of air pollution this is suspended in our environment. The composition of atmospheric aerosol debris varies broadly relying on their supply—they will consist of salts (predominantly sulphates), minerals (which consist of silicon), herbal materials, and, in maximum instances, water.^[17]

Modes of transmission and pathogenesis of airborne pathogens:

Airborne diseases are caused by microorganism or viruses that are referred to as *Nidan* and are maximum typically transmitted thru small breathing droplets. By means of the vitiated *Vayu* the *Mukha* and *Nashika*^[18] will be affected and droplets are expelled when some-

one with the airborne disorder sneezes, coughs, laughs, or otherwise exhales in some way. Those infectious cars can journey along air currents, linger in the air, or hang to surfaces, wherein they are ultimately inhaled via a person else. Airborne transmission can occur over notably long distances and periods. In case, while crossing into the restroom someone coughed in mine earlier, it can be a risk. This makes it possible for airborne diseases to infect large numbers of people and more tough to decide the reasons because of a loss of a man or woman-to-individual contact. Airborne transmission has various talents. Airborne diseases can journey distances more than 6 feet and stay infectious inside the air from minutes to hours. This largely relies upon the kind of airflow and preventative measures inside the construct.^[19] Relying upon the type of organism, the degree of exposure, and individual elements, airborne particles may additionally cause contamination to broaden if exposure takes place. Many diseases can rise after exposure to airborne debris, consisting of^[10]

1. The common cold, which can broaden from a rhinovirus
2. Chickenpox, caused by the Varicella zoster virus
3. Mumps, as a result of a paramyxovirus measles, due to every other paramyxovirus
4. Whooping cough, bacterial contamination caused by Bordetella pertussis
5. Aspergillosis, resulting from the Aspergillus fungus
6. Tuberculosis (TB), results from the bacterium Mycobacterium tuberculosis
7. Anthrax, bacterial contamination on account of touch with Bacillus anthracis spores
8. Diphtheria, is a bacterial infection because by Corynebacterium diphtheria
9. Meningitis, could result from exposure to certain bacterial, viral, or fungal particles

Ayurvedic correspondence of Air born epidemics:

Some air-born epidemic diseases are furnished below with their causative organism along with relevant *Ayurvedic* nomenclature.

| Sl.No. | Air born epidemic disease | Causative organism | Ayurvedic Nomenclature |
|--------|---------------------------|------------------------------------|---------------------------|
| 1. | Chickenpox | <i>Varicella zoster Virus</i> | <i>Laghu Masurika</i> |
| 2. | Mumps | <i>Paramyxovirus</i> | <i>Karna Mulaka Jwara</i> |
| 3. | Small Pox | <i>Variola Virus</i> | <i>Masurika</i> |
| 4. | Measles | <i>Myxovirus</i> | <i>Romanthika</i> |
| 4. | Whooping Cough | <i>Bordetella pertussis</i> | <i>Shuska Kasa</i> |
| 5. | Tuberculosis | <i>Mycobacterium tuberculosis</i> | <i>Rajyakshma</i> |
| 6. | Diphtheria | <i>Corynebacterium diphtheriae</i> | <i>Rohini</i> |

Description of Ayurvedic nomenclatures:

Masurika (Variola) & Laghu Masurika:

The yellow or copper colour pustules or eruptions attended with pain, fever, and burning and appearing all over the body, on (the skin of) the face and inside the cavity of the mouth are called *Masurika*.^[20] *Masurika* is caused by aggravated pitta and *Kapha*, but is characterized by the appearance of the eruption of the shape and size of *Masura*.^[21]

Karnamulaka Jwara:

Inflammation near the root of the ear as a sequel of *Sannipatika Jwara* is a serious condition and very few such patients survive.^[22] When the aggravated pitta is localized in the root of the ear, especially after fever, it causes a swelling that is difficult to cure and may lead to death.^[23]

Romanthika:

Romanthika is caused by aggravated pitta and *Kapha*, characterized by the appearance of small eruptions all over the body and associated with fever, burning sensation, anorexia, and excessive salivation.^[24]

Shuska Kasa:

A person affected with cough of the *Vataja* Type, complains of aching pain in the region of his heart, his temples, head, stomach, and the sides and has dry and frequent coughs (unattended with mucus expectorations), with a pale face, a weak and hoarse voice and diminished strength and vigor (*Ojaas*).^[25]

Rajyakshma:

Sada Rupa: Cough, Fever, Pain in the sides of the chest, impairment of voice, diarrhea, and anorexia.^[26]

Ekadash Rupa: coughing, burning sensation in the shoulders, impairment of the voice, fever, pain in the sides of the chest, headache, hemoptysis, splitting of phlegm, dyspnoea, diarrhea, and anorexia.^[26]

Agni Rohini:

Vesicles (*Sphota*) have the appearance of burns and cropping up about the waist (*Kakshya*) by bursting the local flesh, and which is attended with fever and a sensation as if a blessing fire is burning in the inside (of the affected part), are called *Agni Rohini*. The disease is caused by the concerted action of the three deranged *Dosha* (*Vayu*, *Pitta*, and *Kapha*). It is incurable and ends in the death of the patient either on the 7th, 10th, or 15th day of its first appearance^[27].

DISCUSSION

Configuration of airborne disease is vividly explained in Ayurveda in a scattered manner inside the context of various situations. However, prevention & control of such diseases could be very exactly mentioned even though out the complete literature. Time or *Kaala* is a critical parameter that's accountable for the manifestation of the ailment. Three methods of transmission of airborne diseases are described by modern science direct contact, indirect contact & droplet infection.^[19] However, *Ayurveda* had extensively thought about these factors at a minute level by stating that such as *Aoupasargika*^[28] & *Janpodadhwansana Vyadhi*^[29] are mainly transmitted through one another by expired air, physical contact, by eating with others in the same plate, by sharing same bed & using clothes, etc. All these *Nidan* compromises in the above broader classification given by contemporary science. Nowadays, health is not inherited, but it is developed by following the laws of nature. Environment and human health are interdependent. In the present era, the atmosphere is composed of biological, physical, social, and economic factors. Environmental hygiene must be maintained to make a

healthy environment for man. The internal characteristic environment includes *Dosha, Dhātu, Malas, Strotas, Prakriti*, and external factors include *Jala, Vayu, Desha, Kaala*. So it is crucial to balance or maintain it to avoid diseases. In such a condition *Panchakarma* therapy is the best way to treat it. There was the great emphasis given to the maintenance of harmony between the internal and external environment. For this purpose, an excellent dietetics regimen, various lifestyle recommendations, and a good code of conduct are given in a very explorative manner. Proper dietetics & seasonal regimen is advised for rational bridging between the human body & external environment. *Rasayana Chikitsa* again accentuates their effects by improving one's immunity. Time is an essential factor that cannot be avoided in the etiology of the disease. To prevent any disease at the primary stage and prevent its recurrence, the basic methods mentioned by Ayurveda should be followed. Prevention of such diseases is extensively appreciated rather than its curing. Primordial prevention is the best way to prevent the development of risk factors in the population. So the methods mentioned in *Ayurveda* can act as primordial prevention in airborne infectious diseases. The airborne disease can be prevented or stopped from transmission by merely following proper *Dinacharya, Ritucharya Sadvritta, Achararasayana, and Ashtanga Yoga*. The three basic measures which prevent infectious disease are, first one is to control the source of infection, which includes following proper *Dinacharya* or daily regimen, *Ritucharya* or seasonal variation. The second one is interrupting the routes of transmission, which contents following proper *Sadvritta*. The third one includes immunization to take *Rasayana Chikitsa*,^[30] which can promote and maintain health. The composite approach of Ayurveda, i.e. prevention as well as management, can make a good benchmark in the field of such infections.

CONCLUSION

Ayurveda, an ancient science of life in the world, has a holistic approach to the prevention and management of diseases, broadly classified as communicable

and non-communicable, depending upon their mode of transmission. The average life of a person is decreasing due to the current urbanization. The knowledge mentioned by several *Ayurvedic* kinds of literature is the essence of their productive life experiences narrates the identical circumstance underneath the call of vitiated *Vata* which reasons for epidemic sicknesses and deaths mentioned as *Janpodadhwansana Vyadhi*. To manage the airborne disease leading to epidemics, the inclusion of *Panchakarma* therapy and *Rasayana Chikitsa* along with the proper maintenance of *Dinacharya, Ritucharya, Sadvritta, and Brahmacharya* by our ancient *Ayurvedic* scholars decades before and with their treatments this cannot be neglected in the current era of civilization. Despite that, strict following of such *Ayurvedic* principles and creating awareness of such knowledge may become a proper lifeline in a current dangerous epidemic state to overcome it and avoid such circumstances in the future also.

REFERENCES

1. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 24. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 149.
2. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 25-27. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 150.
3. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Sutra Sthan. 6th ed. Vol.-I. Ch. 30., Ver. 84-85. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 617.
4. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 19-20. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 146.
5. US Department of Health and Human Services, Public Health Services, Center for Disease Control and Prevention (CDC). Principles of Epidemiology in Public Health Practice. 3rd ed. Atlanta, Georgia: Center for Disease Control and Prevention (CDC); 2006. [Last accessed on 2022 February 23].
6. Samal J. A historical exploration of pandemics of some selected diseases in the world. Int J Health Sci Res. 2014; 4:165-169. [Last accessed on 2022 February 23].
7. <https://www.medicalnewstoday.com/articles/317632#what-are-they>. [Last accessed on 2022 February 23].

8. <https://www.webmd.com/lung/what-are-airborne-diseases>. [Last accessed on 2022 February 23].
9. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 6.1. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 142.
10. <https://www.medicalnewstoday.com/articles/317632>. [Last accessed on 2022 February 23].
11. <https://www.webmd.com/lung/what-are-airborne-diseases>[Last accessed on 2022 February 23].
12. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6072925/>. [Last accessed on 2022 February 23].
13. bmcinfecteddis.biomedcentral.com/articles/10.1186/s12879-019-3707-y. [Last accessed on 2022 February 23].
14. https://www.researchgate.net/publication/342437026_UNDERSTANDING_AIR_POLLUTION_INDUCED_EPIDEMICS_FROM_THE_VIEW_POINT_OF_INDIAN_TRADITIONAL_MEDICINE_A_REVIEW [Last accessed on 2022 February 23].
15. ctajournal.biomedcentral.com/articles/10.1186/s13601-018-0208-9. [Last accessed on 2022 February 23].
16. <https://www.hindawi.com/journals/apm/2011/124064/>. [Last accessed on 2022 February 23].
17. <https://www.maine.gov/dhhs/mecdc/infectiousdisease/epi/airborne/index.shtml> [Last accessed on 2022 February 23].
18. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 5., Ver.10. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 177.
19. <https://www.webmd.com/lung/what-are-airborne-diseases>. [Last accessed on 2021 December 18].
20. Kaviraj Kunjilal Bhishagratna, Susruta Samhita, Text with English translation, Nidan Sthana. 1st ed. Vol-II, Ch.13. Ver.37. Varanasi: Chowkhamba Sanskrit Series Office; 1998; p.103.
21. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-III. Ch. 12., Ver.93. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 513.
22. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-III. Ch. 3., Ver.278. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 201.
23. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-I. Ch. 18., Ver.27. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 342.
24. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-III. Ch. 12., Ver.92. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 513.
25. Kaviraj Kunjilal Bhishagratna, Susruta Samhita, Text with English translation, Nidan Sthana. 1st ed. Vol-III, Ch.52. Ver.7. Varanasi: Chowkhamba Sanskrit Series Office; 1998; p.525.
26. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-III. Ch. 8., Ver.46. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 372.
27. Kaviraj Kunjilal Bhishagratna, Susruta Samhita, Text with English translation, Nidan Sthana. 1st ed. Vol-II, Ch.13. Ver.18-19. Varanasi: Chowkhamba Sanskrit Series Office; 1998; p.100.
28. Kaviraj Kunjilal Bhishagratna, Susruta Samhita, Text with English translation, Nidan Sthana. 1st ed. Vol-II, Ch.5. Ver.33. Varanasi: Chowkhamba Sanskrit Series Office; 1998; p.48.
29. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 6. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 142.
30. R.K. Sharma, Bhagwan Das, Carak Samhita of Agnivesha, Viman Sthan. 6th ed. Vol.-II. Ch. 3., Ver. 12-18. Varanasi: Chowkhamba Sanskrit Series Office; 2000; p. 145.

Source of Support: Nil

Conflict of Interest: None Declared

How to cite this URL: Chiranjit Biswas et al: Concept Of Airborne Disease In Ayurveda- A Review. International Ayurvedic Medical Journal {online} 2022 {cited April 2022} Available from: http://www.iamj.in/posts/images/upload/903_909.pdf