

WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 9, Issue 4, 1362-1371.

Review Article

ISSN 2277-7105

ROLE OF AYURVEDA IN UNDERSTANDING AND PREVENTING EPIDEMICS

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Article Received on 11 Feb. 2020.

Revised on 01 March 2020, Accepted on 21 March 2020,

DOI: 10.20959/wjpr20204-17187

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ABSTRACT

Epidemics are widespread diseases that affect a larger number of individuals in a population. Often the disease spreads alarmingly bringing about severe health issues or even leading to the death of a mass population. Science is developing day by day and its newer discoveries are tremendously wondering. At the same time the whole world especially the economically and scientifically rich developed countries are facing challenges in prevention of newer disease outbreaks. Perhaps this triggers the modern science to develop effective remedial measures to prevent these widespread diseases. Science enormously succeeds in developing the newer drugs and treatment protocols for epidemic disease. But during this crucial time,

these disease outbreaks wreak havoc in an extensive demographic area. The recent incident in our world exemplifies how an epidemic got developed into a prodigious pandemic. Modern medical science plays a key role in developing effective diagnostic, preventive and therapeutic measures as it is recognized globally. Equally the traditional systems of medicines can also get involved as a preventive and supportive device. *Ayurveda* being the indigenous medicine of India can effectively be utilized to protect the health of our nation. Here an attempt is made to understand and to analyse the disease preventive measures discussed in Ayurveda literatures which can be extended during epidemic outbreaks.

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Dinacharya (Daily Regimens), Sadvrutta (Ethical conducts), Janapadoddhwamsaneeya Vimana Adhyaya (Chapter discussing on epidemics), etc. shows light to understand and to prevent the epidemics effectively.

KEYWORDS: Epidemics, Ayurveda, Dinacharya, Sadvrutta.

INTRODUCTION

Ayurveda mainly aims at maintenance of health of the healthy individual and to eradicate the disease of the sick. Therapeutic measures are planned based on the vitiation attained by *Tridosha*. And for the maintenance of health, *Ayurveda* advises preventive measures which include *Dinacharya* (Daily Regimens), *Ritucharya* (Seasonal Regimens), *Sadvrutta* (Ethical Conducts), etc. It is quite challenging and at times foolish to proclaim that *Ayurveda* can effectively 'cure' the epidemic because the scientific world at present is thoroughly based on 'evidence based medical practice.' But the extensive teachings of *Ayurveda* can effectively be utilized in 'preventing' such disease out breaks up to an extent and also to support the patient during active stage of recovery and rehabilitation.

DISCUSSION

Epidemics- an Ayurvedic Perspective

Epidemics are widespread diseases that affect a larger number of individuals in a population. In 'Janapadoddhwamsaneeya Vimana Adhyaya' of Charaka Samhita (Vimana Section), Acharya observes the gradual alterations in seasons which may impose negative impacts in the larger demographic area. All inhabitants including human beings, animals, vegetations, etc. will affect by the negative impact of nature.^[1] He identifies air, water, land and season as four common factors which can wreak havoc in larger population.^[2] Collection of herbs and preparation of medicine during these types of devastation is highly condemned. Thus Acharya advises to expedite collection of drugs and preparation of medicine even before the disease outbreaks.^[3]

In present era the pragmatic approach to develop exact treatment protocol for forthcoming epidemics finds tedious. But based on the nature of disease and by critical analysis of signs and symptoms evident in patient, *Ayurveda* Physician can develop the measures to treat the disease in Ayurvedic perspective. It cannot be claimed as an unparalleled step but the patient may find better by the collaborative treatment planning by different systems of medicine.

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Acharya Charaka points out Adharma (non-righteous acts) as root cause for the destruction of air, water, land and season which is in turn related with Karma (past and present deeds) and the ultimate source of all is Prajnaparadha (intellectual error). When the rulers deviate from righteous acts, the citizens also tend to deviate from the right path obviously. It provokes the Gods which results in devastation of air, water, land and season. [4] This claim may find insignificant in the present scientific world. But a wise man can observe the involvement of human being themselves for disturbing the rhythm of our nature leading to catastrophic outcomes in our earth.

Another significant remark on epidemics as told by *Acharya Charaka* is about warfare. Different countries or their coalitions are trying to empower and constantly trying to make their mark in this world even by brutal measures. It leads to sudden death of the army who directly get involved in such warfare. The large scale ill effects of chemical or toxic agents used are pervading to a larger population causing severe health hazards. Bio-weapons are also having pivotal role in igniting and breaking out epidemics. So the role of *Rakshas*, *Bhoota*, etc. which are significant in epidemic outbreak as told by *Acharya Charaka* can be correlated to different microbial agents. The ill effects of epidemic are inevitable even in the person who is resorting to health diet. Because of the same reason *Acharya* enumerates *Bhoomi* (land) and *Kala* (time/season) along with other relevant factors which can produce ill effects in an individual who even resorts to healthy diet. Acharya Sushruta also observes the role of wind in spreading the various toxic agents which lead to the manifestation of *Kasa* (cough), *Shwasa* (breathing difficulty), *Pratishyaya* (running nose), *Shiroruk* (head ache), *Jwara* (fever), *Vamathu* (vomiting), etc. These features are always associated with influenza which gets spread drastically during epidemic outbreaks.

Acharya Charaka shows light to physician about approach towards diseases. He says a disease has to be thoroughly examined first. Then Physician should deliberate on appropriate medicaments for the ailment. Based on the knowledge gathered he should initiate the treatment for the ailment. Acharya warns the physician who tries to treat the patient without proper understanding of disease. According to him the success he may attain in managing that particular disease without proper understanding is purely coincidental. He underscores the importance of proper understanding of disease, proficiency in selection of drugs, knowledge regarding the inhabiting land and season. [8]

Management of epidemics

In manifestation of both *Nija* (endogenous) and *Agantu* (exogenous) *Vyadhi* (diseases) the three major etiological factors are *Kaala Viparyaya* (abnormal seasonal variations), *Prajnaaparadha* (intellectual error) and *Asatmya Indriyartha Samyoga* (unwholesome contact between sense organs and their objects). [9]

During epidemic outbreaks, apart from treatment intervention a vast modification of diet and regimens are also advised. Resorting to *Hitahaara* (healthy diet) alone cannot prevent the manifested diseases generally. Thus it is highly significant in epidemic disease as well. *Acharya* clearly states that, not all wrong diet practices are having equal ill effects in our body. Similarly not all vitiated Dosha are having equal strength and there exists differences in *Vyadhikshamatwa* (immunity) among individuals. [10] From this it can be understood that the onset of disease is always preceded by extremely wrong diet practice along with extensive vitiation of *Tridosha* especially in an individual with less *Vyadhikshamatwa* (immunity). So all the measures to boost the immunity and life style modifications as discussed in the context of *Dinacharya* (Daily Regimens), *Ritucharya* (Seasonal Regimens) and *Sadvritta* (Ethical Conducts) are to be incorporated along with treatment intervention and diet modification.

Onset of *Jwara* (fever) is seen generally in epidemic diseases. Thus one should prepare himself for medical care immediately after the appearance of *Poorvaroopa* (Pre-monitory symptoms) of *Jwara* (fever) which include *Mukhavairasya* (altered taste sensation), *Anannabhilasha* (lack of desire towards food), *Arati* (restlessness), *Avipaka* (indigestion), *Angamardda* (body ache), *Aalasya* (laziness), *Dourbalya* (body weakness), etc.^[11] One cannot fix a particular treatment generally for all epidemics. A wise physician should always determine the treatment after due consideration of vitiated *Dosha* and also based on other associating factors which include inhabiting land, strength of the patient, season, digestive capacity of patient, physical and mental constitution, etc.

Preventive Measures

Preventive measures are having crucial role in seizing further spreading of epidemics. *Acharya Dalhanaa* interprets *Upasargaja Vyadhi* in which the disease gets spread by maintenance of close contact of the individuals with diseased ones. ^[12] Thus quarantine and isolation methods are to be strictly established in order to prevent epidemics.

Measures to escalate *Vyadhikshamatwa* (immunity) are relevant especially to protect the healthy individual and also to improve the health of an individual who got recovered from the ill effects of epidemic. *Vyadhikshamatwa* (immunity) can be improved by increasing *Shareera Bala* which in turn is related with *Ojas*. Practice of *Rasayana* formulations discussed in *Ayurveda* is helpful in building up *Vyadhikshamatwa* (immunity). But these are to be consumed under strict medical supervision.

Thus one should practice dietary articles like milk, ghee, etc. which are helpful in increasing *Ojas*. Daily use of *Shashtika Shaali* (a variety of rice), *Mudga* (green gram), *Saindhava Lavana* (rock salt), *Yava* (barley), *Ghrita* (ghee), *Madhu* (honey), etc. are always healthy. One has to avoid *Valloora* (Dried meat), *Guru Ahara Dravyas* (food articles which are difficult to digest), *Koorchika* (a dairy product), *Kilaata* (correlated with Paneer), meat of cow and pork, *Matsya* (fish), *Dadhi* (curd), *Masha* (black gram), etc. from daily diet.^[13]

Ushnodaka (warm water) is always considered healthy by Acharya Sushruta.^[14] Acharya Charaka insinuates utility of Ushnodaka (warm water) in Jwara (fever) in Janapadoddhwamsaneeya Vimana Adhyaya (Chapter discussing on epidemics).^[15] Ushnodaka (warm water) eradicates Adhmaana (flatulence), Kaasa (cough), Peenasa (running nose), Shwasa (breathing difficulties), Parshwaruja (pain on flanks), etc and it is Deepana (carminative), Paachana (digestive) and Kanthya (conducive to throat).^[16] Thus it can be practiced by the patient who suspects or suffers from influenza.

Proper sound sleep in the night is always healthy. *Acharya Sushruta* advises, a person is not supposed to stay vigil in the night nor he should practice day sleep. One has to avoid Diwaswapna (day sleep). As *Diwaswapna* (day sleep) is *Snigdha* (unctous), it leads to the manifestation of such diseases due to elevated *Kapha* and *Pitta Doshas*. It can be understood by considering the clinical conditions born out of untimely sleep which include *Moha* (Delirium), *Jwara* (fever), *Staimitya* (timidity), *Peenasa* (rhinitis), *Shiroruk* (headache), *Shopha* (oedema), *Hrullasa* (nausea), *Srotorodha* (obstruction to bodily channels) and *Agnimandya* (reduced appetite). [19]

Dhoopana (fumigation) with aid of *Rakshoghna Dravya* (antimicrobial drugs) are effective during epidemic outbreaks. *Aparajita Dhoopa* is advised as an excellent fumigation remedy in all types of *Jwara* (fever). [20]

In the context of *Sadvritta* (ethical conducts) *Acharya* advises to cover mouth while sneezing, laughing and yawning.^[21] This is very much essential to prevent droplet infections. Wearing of footwear and usage of umbrella promote *Ojas*.^[22,23] Prohibition of food from *Satra* (can be compared with restaurant food) and *Gana Ahaara* (dining in group) is helpful in preventing epidemic diseases by the close contact of people during gathering.^[24] Moreover *Acharya* advises to take bath or to wash hands, foot and mouth before having the meals.^[25] This prevents the entry of microbes internally and there by prevents the disease manifestation. Preparations advised in *Pathyakalpana* (diet) which include *Manda* (liquid portion of rice gruel), *Peya* (thin gruel), *Vilepi* (thick gruel), etc. can be consumed gradually based on strength of *Agni* (digestive capacity).

CONCUSION

Kaala (season or time) is an inevitable factor which is responsible for survival of a person. The same factor itself can cause diseases in him. The whole universe is being regulated by *Kaala* (season or time). Thus it can be considered as universal cause for everything which includes health and disease or life and death. Here comes the importance of understanding epidemics which can hamper or destroy a larger population. Science rapidly develops remedies in its own logical fashion still fails to save lives of larger population especially during epidemic outbreaks.

Teachings of *Ayurveda* are time tested and it is the remedy for innumerable diseases of present era. *Ayurveda* nuances the role of *Adharma* (unrighteous acts) and *Prajnaaparadha* (intellectual errors) in causing epidemics. These facts are usually being ignored by the majority or may feel insignificant in present era. Quintessentially these are the facts which can negatively influence our Physical, Verbal and Mental actions. Development in modern medical science and incorporation of scientific investigation tools are need of the time. Thus it can be utilized along with Ayurvedic measures to tackle epidemic outbreaks effectively.

LIST OF REFERENCES

- Acharya Agnivesa
 — Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda
 Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya,
 prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738
 P-240.
- 2. Acharya Agnivesa– Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya,

- prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-241.
- 3. Acharya Agnivesa— Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-240.
- 4. Acharya Agnivesa— Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-242.
- Acharya Agnivesa
 CharakaSamhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-242.
- Acharya Agnivesa
 CharakaSamhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-129.
- 7. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of Chikitsa Sthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-115.
- 8. Acharya Agnivesa– Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-115.
- Acharya Agnivesa
 Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-178.
- 10. Acharya Agnivesa- Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya,

- prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-178.
- 11. Acharya Agnivesa– Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-202.
- 12. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of Chikitsa Sthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-115.
- 13. Acharya Agnivesa— Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-38.
- 14. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of Chikitsa Sthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-200.
- 15. Acharya Agnivesa– Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-246.
- 16. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. Hari Sadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-65.
- 17. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of Chikitsa Sthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-359.

- 18. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. Hari Sadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-142.
- 19. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. Hari Sadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-142.
- 20. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. HariSadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-572.
- 21. Acharya Agnivesa– Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-59.
- 22. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of Chikitsa Sthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-490.
- 23. Acharya Sushruta-Sushruta Samhita with Nibandhasangraha commentary of Sri Dalhanacharya and the Nayachandrika Panjika of Sri Gayadasacharya on Nidana Sthana edited by Vaidya Yadavji Trikamji Acharya from the beginning to the 9th Adhayaya of ChikitsaSthana and rest by Narayan Ram Acharya 'Kavyatirtha', Published by Chaukamba Suarbharati Prakashan, Varanasi, UP, Reprint-2008 Pp-824 P-490.
- 24. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. Hari Sadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-33.

- 25. Acharya Vagbhata, Ashtanga Hridaya with commentaries-Sarvangasundara of Arunadatta and Ayurvedarasayana of Hemadri; Annotated by: Dr. Anna Moreshwar Kunte and Krishna Ramachandra Shastri Navre; Edited by: Pt. Hari Sadasiva Sastri Paradakara Bhishagacharya;, Chaukamba Subharati Prakashan, Varanasi; Edition: Reprint, Year 2010, Pp-956, P-156.
- 26. Acharya Agnivesa- Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Deepika Commentary of Chakrapanidatta, edited by Vaidya Yadavaji Trikamji Acharya, prologued by Prof.R.H.Singh, Choukamba Surabharathi Prakashan, reprint 2011 Pp-738 P-129.