

**SWINE FLU- AN AYURVEDIC APPROACH**Trivedi Atal Bihari<sup>1</sup>, Mahajan Nitin<sup>2</sup>, Chaudhary Robin<sup>3</sup><sup>1</sup>Associate Prof. H.O.D. P.G. Deptt Of Kayachikitsa<sup>2</sup>Asstt.Prof. P.G. Deptt Of Kayachikitsa <sup>3</sup>P.G.Scholar

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**ABSTRACT**

*Ayurveda* “Science of life” or “wisdom of life” deals with nature and includes all aspects of life. *Ayurveda* is one of the most ancient Medical Science which sees human being as an integral part of nature. First objective of *Ayurveda* is “*swasthasyaswasthrakshanam*” that is to promote health and thereby preventing the ailments. *Ayurveda* define health as a state of physical, mental, intellectual and spiritual well being. *Ayurveda* is ancient in its origin but its concept like *aupsargikaroga* (communicable diseases) and *Janapadodwansa* (epidemics) still holds importance in this modern era. Pandemic H1N1 2009 (Swine flu) virus was the virus of the year 2009 because it affected the lives of many people in this year. H1N1 was the first described in California in April 2009 and spread very rapidly all over the globe. This had far-reaching consequences for the local health authorities in the different affected countries and created awareness in the public and fear in experts and even more so in many lay people. This article describes the history of H1N1 pandemic. An introduction to H1N1 virion, its transmission to humans, its description in *Ayurveda* texts and an *Ayurvedic* approach in its prevention as well as treatment.

**Keywords:**-*Ayurveda*, Swine Influenza, H1N1, Anti-viral, Swine Flu, Pandemic.

**INTRODUCTION**

Swine influenza, also called pig influenza, swine flu, hog flu, pig flu, is an infection caused by any one of several types of swine influenza viruses.

Swine influenza virus (SIV) or swine-origin influenza virus (S-OIV) is any strain of the influenza family of viruses that is endemic in pigs. Influenza A (H1N1) virus is the subtype of influenza A virus that was most common cause of human influenza (flu) in 2009.

**Virus overview:- (structure of influenza virus):** It is an orthomyxovirus that contains the glycoprotein's- Haemagglutinin (H) and Neuraminidase (N). For this reason, they are described as H1N1, H1N2 etc depending on type of H or N antigens they express. Hae-

magglutinin causes red blood cells to clump together and binds the virus to the infected cell. Neuraminidase are a type of glycoside hydrolase enzyme which helps to move the virus particle through the infected cell and assist in budding from the host cell.

The influenza virion is roughly spherical. It is an enveloped virus. The outer layer is a lipid membrane which is taken from the host in which virus multiplies. Inserted into the lipid membranes are ‘spikes’ which are proteins that is HA and NA. The HA and NA are important for immune response against virus, an antibodies against these spikes may protect against infection.

Beneath the lipid membrane is a viral protein called M1, or matrix protein. This pro-

tein, which forms a shell gives strength and rigidity to the lipid envelope. Within interior of the virion are the viral RNA's of them for influenza A viruses<sup>1</sup>.

**History:** Swine influenza was the first proposed to be a disease related to human flu during the 1918 flu pandemic, when pigs become ill at the same time as humans.

H1N1 virus pandemic history- In April 2009, first cases of a new obviously epidemic flu were reported in Southern California. Influenza pandemic situation have been reported back in ancient times. The Spanish Influenza was a real disaster with a death toll of 20-100 million people. On June 11, 2009 the WHO raised the worldwide pandemic alert level to phase 6 for swine flu, which is highest alert level<sup>1</sup>.

**Transmission :(to humans)**

**Table No 1. The different modes of disease transmission one person to another is mentioned as :-**

Abhinyasa  Jwara	Swine Flu
Jwara	Fever
Kasa	Coughing
Shushka Kantha	Sore throat
Bhaktadweshi	Anorexia/Nausea
Pralap	Delirium
Shirorodanam	Headache
Chhardi- Atisaar	Vomiting/ Diarrhoea
Alpasangya	Sudden Dizziness
Nischetana	Loss of consciousness
Shwasanadi nigraha	Difficulty in Breathing, shortness of breath

- Prasangaat (sexual route)
- Gatrasamsparsaat (body contact)
- Nihshwasaat (Droplet infection)
- Sahabhोजनात (taking food with diseased person)
- Sahashayyasanaat (sitting or sleeping with infected person)
- Vastramalyaanulepanaat (using clothes, cosmetics and ornaments of patient)

Sushruta mentioned diseases like *kushtha* (leprosy and other skin disorders), *Jwara* (fever of epidemic origin like swine flu), *shosha* (pulmonary tuberculo-

People who work with poultry and swine, especially those with intense exposures are at increased risk of zoonotic infection with influenza virus. Other professions at particular risk of infection are veterinarians and meat processing workers.

Influenza spread between humans when infected people cough or sneeze, then other people breath in the virus or touch something with virus on it and then touch their own face.

In *Ayurveda*, it may be defined as *Aupsargika roga/Samsargaj roga* (communicable disease). The disease which are communicable due to history of contact with person who is affected

sis), *Netrabhishyanda* (conjunctivitis) etc. are communicable from one person to another<sup>2</sup>.

According to *Charaka*, though individual persons differ widely in physical health and vitality, they are collectively liable to devastating epidemics (that is *Janapadodwansa*) caused by external factor that is *Bhutabhisangaja*- swine flu virus<sup>3</sup>.

**SIGNS AND SYMPTOMS:** Its clinical signs and symptoms can be compared with *AbhinyasaJwar* (that is a type of *sannipataja jwara*) mentioned by *AcharyaSushruta*<sup>4</sup>.

In *AbhinyasaJwara* mainly “*PranavahaSrotas*” is involved (i.e. Respiratory system).<sup>5</sup>

**Other symptoms described in *AbhinyasaJwara*:** According to *AcharyaSushruta* *AbhinyasaJwara* is *KrichhaSadhyai*. i.e. treatable but takes time and effort. According to other *Acharyas* that is *Yoga Ratnakara*, if all the symptoms are present in any patient, then this condition is fatal and surely the patient will die.

**Management Of Swine Flu:** Swine flu (*AbhinyasaJwara*) treatment follows *SannipatajaJwaraChikitsa*. In *SannipatajaJwara-kaphasthana-anupurvichikitsa* should be done i.e. *Kapha Shaman Chikitsa* is done initially thereafter *Pitta* and *Vata Shaman Chikitsa*.

The primary objective of *Ayurveda* is “*swasthasyaswastharakshanam*” i.e. preserving the health of those who are healthy or prevent diseases. This can be done by choosing a drug having *Rasayana* properties and should be given regularly to individuals especially in areas pandemic to Swine Flu.<sup>6</sup>

**Few preventive measures according to *Ayurveda* and Modern science:** Start practicing *Pranayam*, especially ‘*hot pranayam*’

Table no.1 Comparative symptoms of *Abhinayasa jwara* & Swine flu.

like *Bhastrika* and *Kapalbhaati*. This will improve lung capacity and immunity to combat any infection from the viruses.

- Virus spread between humans through coughing or sneezing and people touching something with the virus on it and then touching their own nose or mouth.
- Use standard infection control against influenza. This includes frequent washing of hands with soap and water or with alcohol based hand sanitizers, especially after being out in public.
- The *Puja*, *Hom*, *Hawan* etc being done in *Hindu* has disinfecting properties. Studies have shown that lightening the lamp of cow’s ghee has antiviral properties.
- The ‘*Dhupan*’ being done with the help of *Guggulu* has very effective disinfectant properties.

Preventive health care strategies are typically described as taking place at the primary, secondary and tertiary prevention level. These levels might be better described as prevention, treatment and rehabilitation.

**Table no.2 Health Care Strategies**

Level	Definition	Ayurvedic Drugs
<b>Primary Level</b>	Methods to avoid occurrence of disease either by eliminating disease agents or increasing resistance to disease ( <i>ojovardhan</i> ).	<i>Amalaki (Emblicaeofficinalis)</i> , <i>Guduchi (Tinospora cordifolia)</i> , <i>Ashwagandha (Withaniasomnifera)</i> , <i>Shatavari (Asparagus racemosus)</i>
<b>Secondary Level</b>	Methods to detect and address on existing disease prior to the appearance of symptoms.	<i>Yashtimadhu (Glycerrhizaglabra)</i> <i>Kutaki (Picrorrhizakurroa)</i> <i>Punarnava (Boerhaaviadiffusa)</i>
<b>Tertiary Level</b>	Methods to reduce negative impact of symptomatic disease. Eg. Stay home if flu like symptoms appears, or avoid large public gathering.	<i>Tulsi (Ocimum sanctum)</i> , <i>Nimba (Azadirachta indica)</i> <i>Haldi (Curcuma longa)</i> <i>Bhunyamalki (Phyllanthus niruri)</i> <i>Chitraka (Plumbagozeylanica)</i>

**Probable Ayurvedic Management :** According to *Ayurveda* daily dietary habits (*ahara*) and Lifestyle (*vihara*) plays a major role in disease management. If the *Ja-*

*tharagni* (digestive fire) is normal and *Dincharya/Ratricharya/Ritucharya* (daily/seasonal routine) is followed, then immunity will remain powerful and thus no

infection can cause disease. So ideal dietary regimen and Lifestyle should be followed during seasons like monsoon and winters when the maximum chances are there for viral infections.

Many *Ayurvedic* plants and drugs have anti-viral/Anti – Oxidant/Anti - Microbial

properties and have been found very effective in current research works and being practiced in India since thousands of years for combating various seasonal and viral infections.

**Table no.3 Ayurvedic drugs having Anti – Viral properties.**

Ayurvedic Drug	Alkaloid having Anti-viral properties	Some other Properties
<b>Tulsi</b> ( <i>Ocimum sanctum</i> ) ( <i>Ocimum basilium</i> ) ( <i>Ocimum tenuiflorum</i> )	Eugenol, carvacrol, methyl eugenol, caryophyllene, ursolic acid	Immuno- modulatory activity
<b>Nimba</b> ( <i>Azadirachta indica</i> )	Nimbolide, Nimbidin, nedunin, Azadirachtin, NB-II peptidoglycan, NCL-11	Anti-malarial, immunomodulatory, Anti-inflammatory, Anti-pyretic, Anti- bacterial, Diuretic
<b>Haridra</b> ( <i>Curcuma longa</i> )	Curcumin	Acts on H1N1, H6N1, HIV-1&2 Anti-inflammatory Anti-ulcer, anti-mutagenic
<b>Yashtimadhu</b> ( <i>Glycyrrhiza glabra</i> )	Glycyrrhizin	Acts on Influenza A virus Lower Hepatocellular damage
<b>Chitraka</b> ( <i>Plumbago zeylanica</i> )	Plumbagin	Acts against Influenza A virus
<b>Punarnava</b> ( <i>Boerhaavia diffusa</i> )	Alanine, arachidic acid, aspartic acid, boeravinene A, punarnavine, ursolic acid	Stops bleeding, supports kidney, protects liver, lower Blood Pressure, cleanses blood
<b>Guduchi</b> ( <i>Tinospora cordifolia</i> )	Berberine, Choline, Tembetarine, tinosporine, magnoflorine, jatrorrhizine, pemetine	Immuno-modulatory activity, anti-pyretic, Best Immune system

**Some Useful Ayurvedic single drugs :-**

*Ela, Dalchini, Chirayata, Brahami, Bilwa, Shunthi, Kutaja, Amalaki, Ghritkumari, Kalmegha, Manjishtha*

**Some Useful Ayurvedic Compound Formulations:-**

*Sitopladi Churna, Laxmivilas rasa, Chyavanprash, Haridrakhand, Talisadi Churna, Lavangadi Gutika, Malla Sindura, Samirpannaga Rasa, 64 Prahari Pippali,*

*ShwasKuthar Rasa, ShwasKasa Chintamani Rasa*

## REFERENCES

1. Available from [http://www.wikipedia.com/swine\\_influenza](http://www.wikipedia.com/swine_influenza)
2. Acharya Yadavji Trikamji. Sushruta Samhita Vol. I. Chaukhamba Sanskrit Sansthan. Varanasi. 1994. Su.Ni. 5/33-34

3. Acharya Yadavji Trikamji. Charaka Samhita Vol. I. Chaukhamba Sanskrit Sansthana. Varanasi. 1990. Ch. Vi. 3/27
4. Acharya Yadavji Trikamji. Sushrut Samhita Vol. II. Chaukhamba Sanskrit Sansthana. Varanasi. 1994. Su. Uttara. 39/45
5. Vaidya Laxmipati shastri. Yoga Ratnakara Purvardha. Chaukhamba Sanskrit series office. Varanasi 1999. Jwaranidana p. 189/23
6. Available from <http://www.ayurveda-foryou.com>
7. Available from [http://www.webmedcentral.com/article\\_view](http://www.webmedcentral.com/article_view)
8. Available from <http://repository.ias.ac.in/5193/1/305.pdf>
9. Available from <http://www.scielo.br>
10. Available from <http://www.ncbi.nlm.nih.gov/pubmed/17886224>
11. Available from <http://www.phytojournal.com> (ISSN-2278-4136)
12. Available from <http://www.rain-tree.com/ervatostao.htm>
13. Available from <http://www.webmedcentral.com>
14. Available from <http://www.plantsjournals.com>

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