AYURVEDA PERSPECTIVE ON COVID-19, FUNGAL-INFECTIONS ASSOCIATED WITH DISEASE AND POSSIBLE MANAGEMENT: A REVIEW

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Abstract

Ayurveda the fore front system of health care described terms Janapadodhwamsa or Maraka for epidemics. Ayurveda mentioned Nidana (causative factors) for Janapadodhwamsa. Host susceptibility (Nija) when get affected by external agent (Agantuja) then such types of diseases arises. COVID – 19 is one such type of condition occurs due to the viral infection. Anti-viral medications (Prativisha) and guideline suggested as per medicinal agencies can provide preventive and therapeutic benefits. Literatures revealed post COVID manifestation of fungal infections in some patients. This article reviewed Ayurveda perspective on Janapadodhwamsa and possible management of COVID–19 w.s.r. to prevalence and management of post COVID fungal infection.

Keywords:

Introduction

Ayurveda the oldest science of medicine of Indian origin contributed significantly towards the health restoration of society. History of epidemics is well mentioned in ancient Ayurveda literatures and Ayurveda scholars described term Janapadodhwamsa for such types of condition. Ayurveda described Nidana, associated complication and management of various infectious diseases which can be epidemic. Ayurveda mentioned that vitiation in biological entities (Figure 1) along with deranged state of Vayu, Jala, Desha and Kala enhances prevalence of Aupsargika Roga which can turn to Janapadodhwamsa.

Currently whole world suffering from pandemic consequences of COVID-19 due to the causative virus (SARS-CoV-2). It is enveloped RNA virus related to the SARS (Severe Acute Respiratory Syndrome) virus. Transmission may occur through close contact, through respiratory droplets via coughing and sneezing. Infected surface can also become source of transmission if person touches such infected surface just before touching of his/her eyes, nose and mouth. Fever, cough, myalgia, loss of taste, smell and fatigue are major symptoms of disease. Drugs like; favipiravir, remdesvir, chloroquine and plasma therapy, etc. were utilized in past few months for disease prevention.

Medical science suggested some preventive approaches for controlling transmission of Corona virus like; frequent hand washing, maintaining respiratory hygiene, avoiding of touching of
Pandemics as per Ayurveda

Ayurveda Samhitha described concept of mass destruction as epidemics and in context of COVID-19 the principles of Janapadodhwamskara or Maraka & Oupasargika Roga can be discussed on the basis of their mode of transmission and severity:

Disturbances in environmental factors, vitiation of Doshas, Dhatus, Agni mandya leading to the sluggish metabolism and susceptibility towards the infectious microbes, etc. are some factors together can leads infectious diseases like COVID-19. As per Ayurveda the pulmonary involvement of covid-19 mainly associated with Pranavaha srotas associated with Vata vitiation. [3-6]

According to Ayurvedic philosophy this problem can be considered as "Dadru". The involved Dosha is Kapha & Vata. Kapha symbolizes mucus, resembling cold, heavy and sticky nature. Vata symbolizes air which is dry, subtle and mobile. Third Dosha is Pitta which symbolizes heat or fire. However primarily involved Doshas are Kapha and Vata [7].

Considering current situation the following fundamental principles of Ayurveda need to be adopted for acquiring diseases free health status:

- Maintaining hydration of body is prerequisite preventive measure of Covid-19, this process helps in detoxification through sweating and urination.
- Consumption of balanced & healthy food as per Prakriti of individual.
- Diabetic patient may face consequences of such viral infection therefore it is needed to avoid daily and dietary habits which can aggravate diabetes.
- Antioxidant herbs, cereals, pulses, whole grains and nuts, etc. are advised to maintain immunity.
- One should avoid routine that can cause fever associated with cold & cough means consumption of too cold water, cold drinks, ice creams and exposure to the allergens, etc.
- Tulsi, Dalchini, Kalimirch, Turmeric and Shunthi, etc. can be as preventive home remedies, these drugs improves immunity and resist prevalence of respiratory infections.
**Associated complications:**

Invasive fungal infection also observed as post-COVID manifestations in patients, especially patients with diabetic, elderly and immuno-suppressed patients observed prone to such fungal infection. The fungus invades sinuses and enters into orbit and brain thus consequences observed related to the ENT problems. Disturbance in vision, loss of vision, palatal erosion and facial swelling, etc. are symptoms associated with post-COVID fungal manifestation. It is believed that patient with COVID-19 and diabetes may possess altered immune response therefore becomes susceptible for such types of infection. Alteration of oral microbial flora, dry mouth because of uses of drugs, negligence of oral care during severe fever episodes and low immunity, etc. can lead fungal infection. Early clinical diagnosis through microbiological tests, uses of radiology techniques and histopathological profile, etc. can helps to combat against such types of conditions before things get worsen [8-11].

**Possible Management through Natural Ways:**

- Yoghurt and other probiotics can provide good bacteria and help to restore oral flora that can maintain health of oral or sinus.
- Cleaning with natural cleanser can help to control spread of infection.
- Apple cider vinegar can be used due to its antifungal property; however study or documented evidence needed for post pandemic manifestation observed currently.
- Tea tree oil also possesses antifungal activity and no side effect thus can be advised here with suitable vehicle.
- Coconut oil acts as antifungal agent, can be advised as safe option for topical application.
- Topical as well as internal administration of turmeric can provide antimicrobial response.
- Garlic due to its intense property offers antifungal action. People consume garlic regularly considered less susceptible towards fungal infections.
- Consumption of Vitamin C can helps to boosts immune system and protects from infections.
- Ginger contains Gingerol which has antifungal properties, thus ginger can helps to resist severity of infections.

**Precautions which can help to prevent consequences of fungal infections:**

- Maintain oral hygiene.
- One should maintain hydrated body to regulate process of detoxification.
- Inform to medical practitioner in case of any oral or ENT related problems.
• Diabetic patients need to take more precaution.

• Stress or anxiety can worsen severity, therefore one should remain free from stress.

• Complete treatment protocol of pandemic viral infection need to be followed to any instances of associated complications.

**Conclusion**

Ayurveda focuses on maintenance of health by preventing and treating diseases. Classical texts of Indian medical science described *Sankarmna Roga* as *Aupsargika Roga* which can transmit from one to another person. Ayurveda mentioned that conduction of seasonal dietetic regime, *Vyayam*, uses of Ayurvedic drugs, *Shodhana*, *Yoga*, *Satvavajaya Chikitsa*, *Sadavrutta Palana* and *Rasayana Chikitsa* can be applied for the prevention & management of infectious diseases. Moreover, some preventive measures and therapeutic approaches of Ayurveda can be helpful in complications associated with pandemic diseases.

**References:**


