



Review Article

TRADITIONAL REMEDIES AND COVID-19 : A QUALITATIVE EXPLORATION OF INDIGENOUS RESOURCES

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Abstract

Novel Coronavirus (Covid-19), an infectious disease, a nightmare, scourge confronting humanity and economies. Pandemic has fuelled the fire in turbulent economies. Mankind especially under privileged deserve to be safe from health hazards and timely relief. Modern scientists and researchers are working tirelessly to find remedy and vaccine for the virus. Traditional Ayurveda acquaintance its repository for treating many diseases. This turbulent time we need an amalgamation of modern medicine and Ayurveda. In some cases, Ayurveda have initiated intricacies with modern molecular medicine. Immunity being back bone to absorb any shock on human system, and Ayurveda extends its long-studied support in boosting human immune support system. This study is an exploratory and secondary data-based study, where traditional resources has been explored. Author has proposed a model to fetch a relationship among traditional with modern in a systemic way, in an anticipation of ray of hope for mankind.

Keywords: Covid-19, Traditional resources, Respiratory infections

Introduction

Novel Coronavirus (Covid-19), an infectious disease, spreads over continents. Challenges mankind to secure livelihoods of people, their health and its economy. Need of the hour is to provide robust safety nets for vulnerable, ensuing job continuity and job creation. The situation has further aggravated by the disruptions in demand and supply. Virus spread through droplet of saliva or nasal discharges. Infects respiratory track and ultimately damages vital organs. Scientist till date have failed to develop vaccine to check deadly covid-19, results in its spread as pandemic. Same pandemic has also been reported in few centuries back, comparable to the year 1918 Spanish flu, and the Black death in the year 1300. Social distancing and maintaining basic hygiene like washing hands with soap, using sanitizer and face mask is mandatory to check its spreading. Other traditional resources are available in many countries, Indian subcontinents is looked as silver lining in cloud to check deadly disease. Present situation making survival issues come alive, as how societies will deal with distortions in the market without pharmaceutical innovations. A former commissioner at US Food and Drug Administration said, that treatments and drugs will get economies on track while consequences of physical distancing need to address. World need to secure mankind from health hazards and provide timely relief, especially to under privileged (Pandey, 2019).

CoV is a positive- sense single- stranded RNA (ss-RNA) virus belonging to the coronaviridae family. Various species of virus are responsible for common cold, respiratory problems and complications like SARS and pneumonia. The human coronavirus (CoV) includes HCoV-229E, -NL63, -HKU1, and -OC43, are identified as Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) (Chole Geller, 2012).

Researchers are exploring at least 32 compounds for antiviral properties. 31 antibodies are under examination, 12 are in the clinical trials phase. These clinical trials are mainly

repositioning or repurposing existing molecules. Sanofi and Regeneron are exploring Kevzara (Sarilumab) in phase 2/3 trials. Some notable ones include the controversial antimalarial drugs chloroquine and hydroxychloroquine. Actavase a new drug is being arrayed for compassionate use in American and Israeli hospitals. Two others are being prepared for expanded access, the more promising one Remdesivir and Favipiravir. The generic availability of these medicines will help their compassionate use.

The results of Remdesivir by Gilead Japan are promising, it inhibits the virus's ability to auto replicate inside cell. When patient is in the initial stage of infection and virus is still reproducing in upper part of respiratory track. Favipiravir was developed by the Fujifilm Toyama Chemical corporation, Tokyo Japan. This drug can treat RNA viruses, such as SARS-CoV-2.

Researchers around the world are exploring 50 vaccines, two are at clinical trial level as Milken Institute USA, reported on April 2. Beijing Institute of Biotechnology with CanSino Biologics in China and Moderna, National Institute of Allergy and Infectious Diseases USA. WHO is tracking 18 vaccines, eight on a protein subunit and eight on an RNA subunit. Bharat Biotech, India working together with the University of Wisconsin, Madison, USA for developing a vaccine.

Economy

With market size of USD 55 billion (2019-2020) creates 2.7 million direct and indirect jobs, pharma sector is the backbone of economy. India manages 50 percent of global demand for generic drugs and a takes credit for being a key supplier for nearly 80 percent drugs to fight AIDS. India exports USD 13.7 billion and imports USD 1.99 billion from April 2019 to January 2020. India is the 3rd largest markets for APIs, 4th largest medical device market in Asia, with around 3000 pharma companies and more than 10,000 manufacturing units.

On the onset of pandemic, India is facing up to 40-50 percent price hike in importing raw material, due to unavailability of labour and lockdowns, productions have shut down. Supply disruptions have leads to raw material shortages and impacted access to medicine in some cases. Short term sales have seen some spikes due to stock up on essential medicines. An increase in exports is observed, as developed countries stock up on essential medicines and testing kits etc. Pharmaceutical companies are working along with various agencies to test combinations of medicines for potential cures against the virus.

Ayurveda

Antiquity of Ayurveda can be traced back in ancient times. Ayurvedic remedies are surviving with modern knowledge and backed by ancient literature like Charak Samhita, Brhatrayi, Laghutrayi comprises of Bhavaprakasa, Madhavanidana and Sarangdhara Samhita. These scholarly texts narrate principles through its own diagnostics, pathology and biology.

Ayurveda practices its unique characteristic which distinguishes it from modern medicinal practices. With changing paradigm these age-old health care systems are regaining their reputation of treating many diseases. Ayurveda is earning its popularity being a follower of pro nature, holistic approach and focus on personalized health care. These are fundamentally base on the concept of prakrti-vikrity.

Treatment in Ayurveda follows inherent power of mind and body to tackles the causes of illness barring artificial intervention. The therapy follows the principle of auto-healing without intrusion in nature's hegemony. Ayurveda practices holistic lifestyle management mind-bone-spirit as a solitary element. Ayurveda practices advocates individualized health care since Vikrti and Prakrti both are genetically determined process hence dealt separately as no two individuals are alike. Ancient practices being its strength and have contemporary relevance serves a base for reverse innovation and translational studies. (Singh, 1995; Udupa, 1980; Sharma, 1992; Singh, 2014).

Prevention of replication of viruses with Black and Green Tea

Ginger, Garlic and other herbs with hot cup of tea, comforts throat irritation and itching. Drinking green tea recharges T cells, which helps to fights viruses and helps sojourns their replicating. Metabolic pathways allied with the development of immune system and its benefited to antioxidants. Blueberries is another traditional ingredient of green tea enhances the immune system as prophylactic medicine.

There are only few antiviral drugs which are used for clinical trials till date. Antiviral drug resistance is a concern in patients nowadays and reduced susceptibility is a sign of resistance to antiviral drug. Continuous exposure to antiviral drug and ongoing viral replication due to immunosuppression are main factors in the development of antiviral drug resistance (Lynne Strasfeld, 2010).

Immunology

Developing immunology is prodigious concern among conventional medicine. Immunology proactively develops and involve in the etiopathogenesis in many diseases.

Immune degeneration of tissues, auto immune diseases and immunological inflammation are hallmark of modern pathology. It becomes imperative to gain immunological knowledge to treat or prevent many diseases. Immunization and vaccination give dramatic results in preventive measures, community medicine along with disease specific vaccines have proved their worth in difficult times. Anticancer vaccine serves a classical example.

Body immune system protects against disease by identifying and killing tumour and pathogen cells. A wide variety of agents like parasitic worms, viruses are detected and extricates them from ones' healthy tissues and cells in order to function them properly. Immune system component adapts themselves to new disease encountered and auto generate pathogen-specific immunity.

Ayurveda pronounce a unique concept for vital essence of body, on which all biological and immune strength are responsible and called it as ojas. Ojas is final product of tissue nourishment and it is quintessence on seven dhatus sukra, majja, meda, asthi, mamsa, sara and rakta.

Symptoms and control

Covid-19 is a communicable disease wherein patients are suffering with various symptoms like throat infection, cough and fever associated with mild or severe dysentery. It has typical symptoms like nasal congestions, aches pain, runny nose, sore throat diarrhoea which could be continue till 5-6 days. If someone is suffering with such symptoms, must go for preventive measures. Such symptoms do not mean that patient is positive for Covid-19. These symptoms may for some other flue. Prevention is better than cure, people having such symptoms should immediately start taking precautions and should start taking traditional medicine for prevention and self-isolate themselves for a period of 14 days. Viral infections caused by small germs cause lot of threats to human being. HIV, SARS, Swine flu, and the latest outbreak of Conid-19. Unlike bacterial infections, viral infection does not respond to antibodies. There are still no effective medication or vaccines invented for such infections. Natural herbal medications are available from a long time and used to treat various ailments. Compared to antibiotics, herbal products are known to have less to no side-effects (Mousa, 2015; Liang-Tzung Lin, 2016).

Herbs and shrubs for immune development

Ancient Indian medical history follows various procedures, even surgery for critical care patients and Ayurveda therapy. Ginseng, Ginkgo bilobaa, Turmeric, Black pepper, Ginger, Garlic are daily uses herbs used for healing in Ayurveda.

Stimulating blood circulation and secreting unwanted toxins from human body, many traditional herbs are in practice. In case of covid-19, immunity and sensitivity level of patients reduces, and immunity can be boosted by taking Ginger mixes. These herbal mixes support immune system and heals the patients.

Cinnamon another herb helps in preventing infections and boost immunity. It blocks the secretion of inflammatory constituents in blood cells. Its antioxidant property helps in subsidising pain. Clove a widely used pain killer in Indian households. Cloves are used for aroma and as flavouring ingredient in food and specially tea. North eastern tribes use cloves as medicine for pain management.

Ginger is another herb used as an option to boost immunity. Bacterial and viral infections result in inflammation, and ginger helps in reducing inflammation due to its anti-inflammatory characteristics. Ginger helps in soothing nausea and motion sickness. Vomiting is another symptom of Covid-19, controls thru central nervous system, and ginger helps in boosting their functions by maintaining body temperature. In modern medicine Aspirin is used for this purpose.

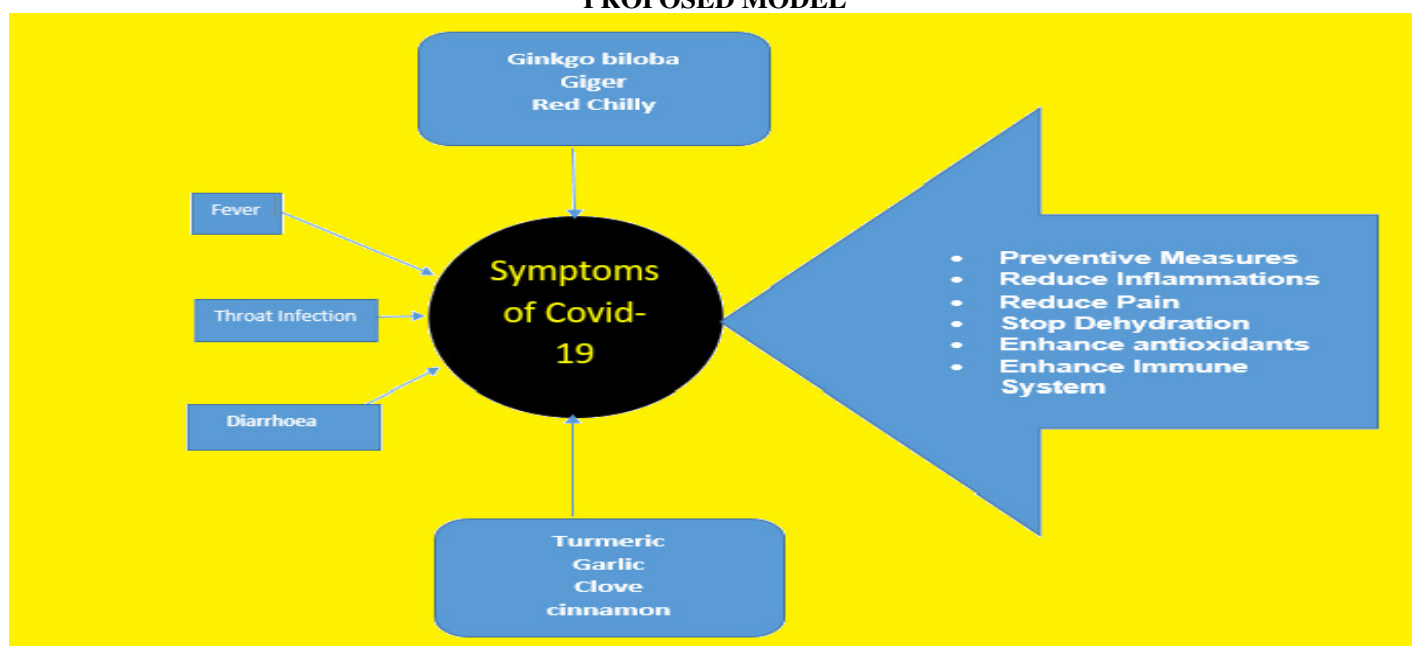
Licorice is another herb used traditionally as medicine by the medical fraternity since centuries.

Herb possess powerful cortisone like features which help diminish immune responses and inflammation. Licorice helps to reduce inflaming in stomach because of its antimicrobial and antioxidants nature. Onion is another herb

which helps to reduce inflammation because it acts as an antihistamine.

Rosemary with its needle like aromatic leaves contains hydrogen peroxide which causes oxidative damage to DNA. Rosemary and turmeric help to protect organs from oxidative damages. Ayurveda product lowered the inflammatory effect of damaged cell. According to Dr. Rawls "Eating crappy food trashes your immune system, makes you susceptible to illness, and sets you up for a lot of problems (Janes, 2020)," National cancer institute identify some frequently used herb which is having inflammatory properties. Many herbs are containing a wide range of phytosterols, saponins, flavonoids and triterpenes which are beneficial substances and are chemo-protective (Khodadadi, 2015).

PROPOSED MODEL



A preventive model is proposed by authors for the prevention and cure of this disease. Some Herb, Shrubs and vegetables when used in write combinations supervised under experts shall play an important role in immunity built up and work as strong preventive source in corona.

Future Scope of Work

Traditional Ayurvedic medicines have negligible side effects. These medicines can be used as prophylactic medicine for the prevention of the problem disease well in advance.

Study is conducted in lockdown period, with the available secondary data. Inclusion of the analysis on basis of primary data could have study more robust and enable author to determine role of traditional medicine more judicially. Available literatures are enough to define the contributions of available traditional resources in India for the treatment of Covid-19.

Limitations of the study

Lack of the integration among Ayurvedic medicine and mainstream medicine fails to find an acceptable solution. Adequate research and development facilities in this domain is also lacking for growth and wide acceptance of traditional medicines.

Adequate doses required for treatments for these ailments need further study at ground level. Lack of incentives for manufactures to scale up their productions of herbal medicine is another stumbling block in the growth of Ayurvedic medicines.

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