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SHORT COMMUNICATION ON AYURVEDIC MANAGEMENT OF ZONOTIC DISEASES

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ABSTRACT

Ayurveda recognizes microbes and their role in diseases but places higher attention on the body's reaction and the emergence of disease when *Bala* (Immunity) is reduced. The fundamental principles portrayed in *Ayurveda* are still applicable to modern medicinal science. A substantial number of standards may be found in traditional *Ayurvedic* writings, which can be contrasted with modern disease transmission hypotheses. The standards described piecemeal can be aggregated, analysed, and interpreted in light of current disease transmission hypotheses. Today, zoonotic illnesses affect a considerable portion of the Indian population. They are frequently numerous in the rural population, and the high prevalence of disease in rural areas is attributable to a lack of awareness and illiteracy in people. An effort has been made in this literary work to explore the most relevant details regarding zoonotic diseases and their therapy through *Ayurveda*.

Keywords: *Zoonosis, Vyadhikshamatwa, Ayurveda, Herbal Medicine*

INTRODUCTION:

In 1880, Rudolf Virchow used the term "zoonosis" to describe diseases that both animals and humans share in nature. The World Health Organization (WHO) later defined zoonosis as "those illnesses and infections that are naturally transmitted between vertebrate men and animals" in 1959. Viruses, bacteria, fungus, and parasites were among the disease-causing pathogens. There were 1,415 illnesses diseases affecting humans, and 61 per cent of these were zoonotic¹. Zoonotic transmission can occur in any situation where there is companionship (pets), economic (farming, etc.), predatory (hunting, butchering, or ingesting game meat) or research interaction with or usage of non-human animals, non-human animal products, or non-human animal derivatives. Its pathogen arises internationally during the time of World War II, affecting middle and low-income nations such as India. From 1940 to 2004, global zoonotic disease assessments revealed that 60.3 per cent of illnesses were zoonotic and rapidly expanding. It has the potential to harm people's health in recent decades².

The zoonotic illness is most often spread by persons who come into direct contact with animals in various environments, as well as by people who enjoy personal pleasure³. When humans

keep animals as pets (dogs, cats) or for dairy needs (goats, sheep, and cattle), zoonosis impairs their health 14000 years ago. Zoonotic disorders are transmitted in one of two ways: 1) directly through contact, and 2) indirectly through the environment. It is necessary to destroy illness in the early stages of infection, as opposed to preventing it⁴. Zoonosis is responsible for 60% of human illness and zoonotic pathogens for 75% of it⁵. Therefore, the zoonotic disease is defined as a disease that causes illness in the person who is infected as a result of pathogen development. Viruses, bacteria, fungi, and parasites, among other things, can cause sickness. These infections are easily transmitted from person to person and from animal to animal. Infectious illness may be included, although zoonosis from the last several centuries is the most common. With the growth of low-income nations comes the necessity for food sources (protein), which leads to direct and indirect interaction with an animal that we incorporate for our purposes (poultry). Pathogens that because sickness is transferred in this way⁶. Air, water, and other media can also spread illness (pathogens)⁷. Infection occurs in the individual who has been exposed to the

pathogen. It is more common to get a respiratory infection.

Rabies is a fatal illness that spreads from a dog to a human via saliva. Swelling develops as a result of its influence on the brain, is mostly found in Asia and is responsible for a significant number of deaths. As a result, zoonosis is a deadly disease system that kills people⁸. Swine flu is a prevalent illness among pig handlers. Due to viral infection, children and infants are equally affected by swine flu. There is a need to cure this condition, which is now being treated with Ayurveda and involves the use of vaccines to create antibodies against the virus. These vaccinations are based on herbs. Also utilised are ginger, garlic, and aloe vera⁹. Leptospirosis is an infectious illness produced either directly or indirectly by the urine of animals. People in low-income countries, both in the countryside and in the city, are affected. According to an estimate, 20-70 per cent of people exhibit signs of lung failure, such as a cough that produces blood and other pulmonary symptoms¹⁰.

AYURVEDIC MANAGEMENT OF ZOOONOSIS THROUGH AYURVEDA

A specific infectious agent or its toxic product is spread from an infectious human, mammal, or reservoirs to a susceptible recipient, either directly or vicariously through an animals or plants

host and vector, or via an inanimate environment. Lack of potable water, insufficient excreta disposal facilities, poor hygiene, poor living circumstances, and dangerous food are all risk factors for communicable illnesses. After natural catastrophes such as floods and droughts, as well as man-made disasters such as war, industrial accidents, and so on, the danger of their spreading increases. It might also be caused by faecal contamination of food and drink, as well as vector and zoonosis infections. The affliction of a significant number of persons within a district/region by an illness that is likely contagious and communicable is referred to as *Janapadodhwansha*. The disorders that lead to *Janapadodhwansha* are attributed to contamination of (air), *Jala* (water), *Desha* (place or soil), and variations in *Kala* (season).

DISCUSSION

Human health is the goal of *Ayurvedic* medicine. The treatment of sickness in Ayurveda is done through plant-based therapy. Ayurveda has a variety of approaches to controlling and managing pathogenic organisms based on observation. *Ayurveda* is a valuable treatment option for zoonotic illness elimination¹¹.The modern medical cure is expensive and damaging to one's health, however, the plant is an enticing and cost-

effective solution to combat zoonotic diseases. A great diversity of vaccines for contagious diseases are currently being developed, many of which have remarkable antimicrobial properties. However, there is no reliable method for administering the vaccine to humans. Oral vaccination is used to treat this condition. Edward Jenner was the first to propose the notion of a vaccine, and it was based on this premise that various zoonotic disease immunizations were developed. Because of the rise in population, there is a rise in output, resulting in a complicated system that does not treat animal and human health as separate issues¹².

Ayurveda is rooted in the second century B.C by *Vaisheshika* (Hindu philosophical teaching). *Rig Veda*, *Sama Veda*, *Atharva Veda* and *Yajurveda* have much knowledge of plants that use in *Ayurveda*.¹³ In *Ayurveda* plant-based medicine has been used that boost the defensive system of the body against disease. Mostly the medicine used is firm but commonly *Ayurvedic* medicine is consist of grinding form that is the mixture of different herbs¹⁴. The weed that is used in *Ayurveda* have well known as *Ashwagandha*, *Shatavari*, *Guduchi*, *Amalaki* and *Bhallataka* are excellent immune-boosting. More than 120 different plant chemicals have the properties of

medicines. According to the national institute of health form anti-inflammatory drugs by used in the traditional approach. These drugs form from turmeric and ginger. The vaccine that form is used for the treatment of cancer. But the composition and quality of medicine should be of great significance¹⁵. *Charka* is the method that treats pathogens. 1) *Apakarshana* approach remove pathogen from the body through purification. 2) *PrakritiVighata* is a drug that stops the growth of pathogens by creating an unpleasant medium for pathogens. 3) *Nidaanparivarjana* most favourable method to treat pathogens by step by step process¹⁶. *Phytolaccadedocantra*, *croton macrostates*, *Amranthesspinosus* are plant use against zoonotic disease. *Phytolaccadedocantra* is a perennial plant for rabies due to its toxicity. Commonly use in Ethiopia north America. Approximately 90% of Ethiopians believe in the traditional method of medicine. The experiment was performed to check their effect against rabies. That show *p. dedecandra* leaves have the ability to against rabies pathogens. This experiment was performed in mice. *Croton macrostachyis* are amazing for epilepsy, rabies, cough, tooth pain, eye pain etc. If the bark of that deciduous plant is chewed it gives relief from rabies and tooth pain *Amranthesspinosus* has annulled herb

that is also used for rabies¹⁷. Post-exposure prophylaxis is the best way to control diseases. We can stop rabies infection by PEP in which the torn area is properly wiped and the proper vaccine is used. The PEP method is used when the rabies symptoms still do not appear¹⁸. There are trying their best for better vaccines in the control of anthrax. Vaccines consist of such pathogenic cell that is harmless and also reduce the infection as the STI strains. The human anthrax vaccine has officially licensed consist of bacterial cell culture and used for 60 years. This vaccine is called AVA (Anthrax vaccine adsorbed) or AVP, it is either absorbed or precipitated¹⁹. Brucellosis is a common illness of zoonotic infection that cause serious health effect that is cured by using herbs solvent (alcohol in nature) as *Salvia Sclarea*, *Oliveriadicumbens*, *Ferulagoangulata*, *Vitex pseudo-negundo*, *Teucriumpolium*, *Plantagoovata*, *Cordiamyxa*, and *Crocus sativus*. These are best against Brucellosis infection²⁰. The herbs have strength against the Brucella pathogen. By using these plants, a mixture in the form of solution is formed. The roots of barberry, garlic, the plants *Alhagi* and *Eucalyptus* are used. Plant pigment flavones and flavonoids have anti-inflammatory properties²¹. Field workers commonly used oxytetracycline and tylosine-sulfadimerazine vaccines for

salmonella treatment, as well as *Moringaoleifera*, *Carica papaya*, and *Vernonia amygdalin*. A neat and clean environment eliminates typhoid fever. Typhoid fever, if left untreated, can lead to severe digestive complications. Typhoid fever is treated with the medications chloramphenicol, ampicillin, and cotrimoxazole²². Praziquantel is the drug that is used for worm disease. Derivatives of the plant are used for worm disease. The most used plants are *Gramineae*, *Zingiberaceae* and *Poaceae*²³. JEV special antibodies are formed to stop the Japanese encephalitis that has strength against the pathogens of Japanese encephalitis. Mutagenesis and hydrogen-deuterium protein is mostly used in treatment. Abs stop the infection before the attachment by stopping the spreading of the virus. The MAbs give a single amount of antibodies after pathogenesis. These antibodies use help in the control of disease²⁴.

These *Ayurvedic* herbs increase strength against disease by promoting immunity. *Guduchi*, *Tulasi*, *Shahdevi*, *Neem Pippali* use for digestive fir. Eucalyptus oil, camphor, Aleo Vera and Ginger are used for swine flu²⁵. Since swine flu has great prevalence due to transmission through the air and between individuals and also have no specific drug for its control. Therefore, it is dealing with

the Traditional method which base Ojas that give strength to the defensive system of the body. This involves a series of processes as *Nidanparivarjana*, *Shamanachikitsa*, *Shodhanachikitsa*, *Rasayanaprayoga*, *Pranayama*, *Yoga*.

CONCLUSION

Traditional herbal medicine plants have been a part of human life since prehistoric times. India has a vast plant bio-diversity and is well-known around the world for its rich flora of herbal and medicinal plants. Herbal medicine is widely available and inexpensive in poor nations. It is worth noting that herbal medicines are the most cost-effective option to treat infectious infections. *Ayurveda* believes in *Vyadhkshamatwa*, which is mankind's most unique defence system. As a result, using medications that enhance *Vaydhkshmatwa* would undoubtedly aid in the battle against zoonotic illnesses.

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