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A Systematic review on the Ayurveda concept of Immunity w.s.r. to Covid-19 and other viral infection

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ABSTRACT

System protect us from infections through various lines of defence is called immune system. If immune system is not functioning as it should, it can result in disease. This system is divided into two types: innate and adaptive immunity. First line of defence consists of physical, chemical and cellular defense against pathogen is innate immunity. Adaptive or acquired immunity is second line immunity against non-self-pathogen. In this article focus to give a way to understand the concept of immunology in *Ayurveda* and its role to prevent disease along with its type as *Vyadhiutpada Pratishedhakatva* (like as innate immunity) and *Vyadhivala Virodhitva* (like as acquired immunity), factors responsible for immunity and way to strengthen it naturally. Comparing the concept of Ayurveda with viral infections found now a days and how it interpreted for managing by using Ayurveda principle.

Key words: Immunity, Covid-19, Viral Infection, Vyadhikshyamatva, Janapadodhwansa.

INTRODUCTION

Having more incidence of disorder like autoimmune disease, hypersensitivity disorder, immune deficiency and transplant rejection. When the immune system attacks self molecules as a result of breakdown of immunologic tolerance to auto reactive immune cells. The branch of science which covers immune systems is called immunology.^[1] Autoimmune disorder are one of the most important non communicable diseases and there are more than 80 auto immune diseases affecting approximately 100 million people worldwide.^[2] The immune system has been divided

into a more primitive innate immune system and invertebrates, and acquired or adaptive immune system.^[3-4] The immune system evolved as defense system to protect animal from invading microorganism and malignant disorder.

A viral disease occurs when an organism's body is invaded by pathogenic viruses and infectious virus particles attach to and enter susceptible cells.^[5] In viral infections, treatment usually consists in reducing the symptoms; antipyretic and analgesic drugs are commonly prescribed,^[6] along with restriction of further contamination. Current CDC-HIPAC (Centres for disease control and prevention-healthcare infection control practices advisory committee) proposed guide lines provides the combination of standard precaution sand isolation procedures represents an effective strategy in the fight against healthcare associated transmission of infectious agents.^[7]

In ancient point of view also these practices are also seen in Indian cultures and traditional Indian medications which are the main focus to describe here.

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Historical Aspect of Social Distancing & Isolation

Cultures of different areas in India shows various procedure which are became applicability in healthcare system. Like during car festival at Puri (Odisha), after Snanayatra Lord Jagannath became sick and suffers from fever. He is offered Herbal Medicines during this period. The Dayita (servants of Lord Jagannath) take care of lord. They sleep and stay there with the deity. The word ANAVASARA is used when lord is not seen in the temple. In Nirbhita festival, the fifteen days period of resting and renovation occurred by isolation of his wife Goddess Laxmi. After isolation from temple he live there separately with privacy.

This story itself shows that there was tradition of isolation after diseased condition which is still followed. The same fact can be applied in public health modalities for better out come and good prognosis.

Concept of disease and its origin

Ancient literatures describe *Purushartha Chatustaya* as *Dharma*, *Artha*, *Kama* and *Moksha* to fulfill someone his aim as living. And considering these factors everyone should be *Arogya* (without any disease) because it is the main cause.^[8] Someone will be called as *Arogya* if he has similar *Dosha*, *Dhatu* and *Mala* which are main constituents of *Sharira* (body) according to Ayurveda. One root cause of developing a disease is called as *Dosha*. A process is required to develops a symptoms/disease is called as *Samprapti* which includes *Nidana* (causative factors) which disbalance *Dosha* followed by *Dhatu* and makes it *Dushta* which again circulates in whole body to find *Kha-Vaigunya*. After *Kha-Vaigunya* there will develops prodromal symptoms (*Poorvarupa*) convert to disease later.^[9]

In this whole process it would be a condition seen as after presence of *Dosha*, *Dushya* there will no arise of prodromal symptoms or disease followings are.^[10]

- *Na Anubandhati* leads to *Na Cha Avinivartate* (if the *Duhsita Dosha* not invade *Dhatu* or *Malas* there will not chance to develop disease).

- *Kalaprakarshat* leads to *Chirat Vyadhi Utpatti* (if the *Dushit Dosha* takes more times to invade *Dhatu* *Mala* there will be chance to late manifestation of disease).
- *Avaliyansa* leads to *Tanu Vyadhis* (week potential *Dosha*, *Dhatu* may be lead to week manifestation of disease or may be not complete manifestation of disease).
- Again seer's describes as after presence of *Nidana* there will be also absence of disease, factors will includes as followings are.^[11]
- *Na Cha Sarvani Apathyani Tulya Doshani* (not all unsuitable *Nidanas* leads to progression of disease by imbalance *Doshas*)
- *Na Cha Sarva Dosha Tulya Bala* (not all *Nidanas* has potency to imbalance *Dosha*)
- *Na Cha Sarvani Sharirani Vyadhikshyamatve Samarthane* (after intake of same *Nidanas* not all individuals have chance to develop same disease as according to their *Vyadhikshyamatva*).

Vyadhikshyamatva^[12]

Vyadhi: disease, *Kshyamatva* ability to protect. First terminology of *Vyadhikshyamatva* quotes at *Vividhasitapittiya* chapter where description of diet and relation of it's with origin of disease. All the *Nidanas* are not able to create disease because individual *Vyadhikshyamatva* as it protect from it. It can be divided as two types where first one is *Vyadhivala Virodhitva* means one which prevent the disease by protect the *Bala* of *Vyadhi*. Other one is *Vyadhiutpada Pratishedhakatva* means one which protect the *Vaydhi* by potency of human health. It can be considered as the first one will be *Rogabala* (disease potency) and next one will be *Rogibala* (patient body potency). *Acharyas* describes assessments of the *Satwa* first one by *Rogabala* and *Sadhyaadhyata* of *Rogas* (eg. *Asadhya Vyadhi* would be incure even if a *Pravara Bala* patients). Second one is assessment of *Rogibala* by *Sara Pariksha* as it quote that *Balamanena Vishesa Gnanartha* (eg. Having a *Pravara Sara* disease became shows good prognosis).

Concept of Bala

Several steps to elicit during plan for manage any disease, according to Acharya Vagbhatta there are 10 criteria like *Dushya, Desha, Bala, Kala, Anala, Prakriti, Baya, Satva, Satmya, Aharasahkti, Vyayamashakti, Vaya* among these *Bala* is one which intervene treatment plan. '*Bala hi Alam*' '*Tadartha hi Kriyakarma*' is described for *Bala*. Special focus have to give maintenance of *Bala* because it intervene prognosis of a disease. Three type of *Bala*^[13] was described in treatise that is;

1. *Sahaja: Yo Sharira Satvah Prakrita* - internal potency which is inherited along with birth is called as *Sahaja Bala*
2. *Kalaja*: potency which changes according to *Kala* (diurnal, season, process of digestion).
3. *Yuktikrit: Bala* which became variant according to human behavior like diet, lifestyle etc. it is bring exogenously by adding extra food, immune booster etc.

Sahaja Bala: '*Prakritastu Bala Slesma Vikrita Mala Uchyate*' inner *Prakrit Sleshama* which is one of *Prakrit Dosha* avail inside body functions to *Sandhibandha, Sthirata, Guruta, Vrishatva, Balam* carry out its functions at different sites of body. It can be maintain by intake of its opposite quality during its exacerbation. *Oja* and *Slesma* having similarity in qualities and its nature as both are the properties of *Sharira Dharana*, any types of deteriorate among them can be destroy out health. *Oja* called as '*Pranayatana Uttamam*' means it is best among all lifesaving matters so it can be destroys health by loss of its own - *Tat Nasat Vinashati*. It was quoted that it is the first matter which origin during development of body and after development it will form by best extract from all *Dhatu*. 10 characters of *Oja* are describes as *Guru, Shita, Mrudu, Slaksna, Vahala, Madhura, Sthira, Prasanna, Picchila, Snigdha*.

Function of this Oja^[14]

<i>Sthira Upachita Mansa</i>	Good composition of bodily tissue.
<i>Sarva Chesta Apratighata</i>	Proper physiological

	functions.
<i>Svara Varna Prasada</i>	Complexion and voice are proper.
<i>Bahyaabhyantara Karana Atmakarma</i>	Sense organs responds are good.

Cause of depletion: it deteriorate by different works of human being as it can include as physical, functional and psychological functions. Physical includes *Abhighataja, Shrama* and *Kshudha*. Physiological includes *Kshyayat* and psychological includes *Kopa, Shoka, Dhynana*.

Symptoms of depletion of Oja^[15]

There are 3 main type of depletion describes in texts are

<i>Vimsransa</i>	<i>Vyapad</i>	<i>Kshyaya</i>
<i>Sandhi Vislesha</i>	<i>Stabdha Guru</i> <i>Gatrata</i>	<i>Murcha</i>
<i>Gatrasadana</i>	<i>Vatasopha</i>	<i>Mamsakshyaya</i>
<i>Dosahchyavana</i>	<i>Varna Bheda</i>	<i>Moha</i>
<i>Kriyasannirodha</i>	<i>Glani</i>	<i>Pralapa</i>
-	<i>Tandra</i>	<i>Marana</i>
-	<i>Nidra</i>	-

Management: *Jivaniya Oushadha* (*Jivaniya Mahakashaya* drugs), *Kshira* (milk), *Rasa* (*Mansarasa*) and *Bala Apyayana* (drugs which increase *Bala*) were the management principle of this *Oja Kshyaya* describes in *Ayurveda*.

Kalajabala: '*Kala Punah Parinama*' means it is nothing but a process of transforming into seasons, solstices etc. it is temporal. Based on the season it will '*Adavante Cha Dourvalya*' means in the season of summer and rain it is less potent, in middle season like autumn and spring there will medium strength, lastly in winter it is more potent. According to the age of person it will varies as in childhood (1-16yrs) there will *Aparipakva Dhatu, Sukumar, Asampurna Bala*, maturing age lasting upto 30year of age there will be *Vivardhamana Dhatuguna*, upto 60yrs of age there will be *Sarvadhathuguna Bala* there after during old

age lasting upto 100th yrs of age there will be *Hiyamana Dhatu Indriya Bala* means diminution of *Bala* becoming more prone to disease.^[16]

Management and precaution

There are several description to remain healthy are *Rutu Sodhana* means biological purification in appropriate season. Three season considered as *Sadharana Rutu* that is *Vasanta, Sharata* and *Pravrit* where *Vamana, Virechana* simultaneously. *Sodhana* having the qualities of *Rogahara Bala Varna Prasadnam* means it increases the potency to prevent disease, increase power of digestion and improves *Bala*. Also description of *Rutusandhi* means the remaining time of ending season and starting season of coming season which includes 15days total. Here in *Rutusandhi* maintain of health by intake of *Laghu Ahara, Ushna Jala, Upavasa* etc.

Concept of Agni and its relation to immunology

Emphasis of *Agni* quotes various context in literature as it is also mention that less digestion increase probability of disease (*Rogah Sarvepi Mandagnou*). Common factors also depends on *Agni* as *Aayu Bala Varna Swastha Utsaha Upachaya Prabha Oja Tejo Tatha*.^[17] Here also *Oja* comes under *Agni*. It is the digestive power which involves starting of food indulge to assimilation of foods.

Yuktikrit Bala

It can be considered as all medicines or other life supports activities which give endogenous support to us. In *Ayurveda*, *Rasayan* are very commonly used for prevention approach. Among eight branches in *Ayurveda* which deals with immunology and geriatrics. Term *Rasayana* derives from *Rasa + Ayana* refers to the path which provides nutrition to bodily cells and tissue. *Dhatu (Dharanat Dhatu)* i.e. bodily cells and tissues which are the nutritional status of different cells or tissues. Secondary attributes of *Rasayan* are such as longevity, immunity, improved mental and intellectual competence. It is presumed that the *Rasayana* agents promotes nutrition through one or all of the three modes at the level of *Rasa, Agni* and *Srota*, meaning there by that some

Rasayanas are nutrients in themselves, which certain others are metabolic boosters and some others are the agents which cleanse the micro-channels and augment microcirculation of nutrients in the body.

Types of Rasayan

Classically *Rasayan* therapies categorize as below;

In terms of use, *Rasayan* may be divided into^[18]:

- A. *Kamyas Rasayan* where the healthy individual take it for maintaining health. Such *Rasayan* are again divided into;
 1. *Srikamyas* - which promotes lusture of physical body.
 2. *Pranakamyas Rasayana* - for longevity it is being usefull.
 3. *Medhakamyas* - for cognitive ability and mental health it is being usefull.
- B. *Naimittika Rasayan* where it is being usefull as disease specific for a patient. It varies according to disease e.g. for diabetes – *Shilajatu Rasayan* and for leprosy – *Tuvaraka Rasayan* may be helpful.

In terms of procedures to be adopted to administration of *Rasayana* therapy the procedure are of two kinds, namely as;

- A. *Vatatapika Rasayan* which can be used by outdoor patients without adopting any kind of intensive regimen.
- B. *Kutipravesika Rasayan* where patients should be kept in intensive care on placing him in a *Trigarbhakuti*, according to him/her *Prakritti, Vaya, Kala* for a specific period of time. In this therapy room he was applied different *Panchakarma* therapies which opens the micro channels and then apply *Rasayan* medications.^[19]

In terms of therapeutic modalities *Rasayan* has been describes in three types named;

- A. *Achara Rasayan* - one type of *Adravyabhuta* (nonmedicinal) *Rasayan* modalities by adopting positive lifestyle, behaviour to get *Rasayan* effects.

B. *Ajasrika Rasayan* - this is by adopting good diet for getting *Rasayan* effects. These are *Rasayana* effects brought their action at one or all of the three level mentioned above such as at the level of *Rasa*, *Agni* and *Srotos* i.e. as micronutrients, metabolic boosters or as promoters of microcirculation.

Valavriddhikara Bhava^[20]

Ayurveda treatise describes various factors which involves for improves vitalities of human health describes below;

<i>Valavat Purusha Deshe</i>	Those who born or reside in place where <i>Bala</i> more dominant
<i>Valavat Purushe Kale</i>	Seasonal variation where more dominance of <i>Bala</i> , seasons like winter have more <i>Bala</i> compare to other.
<i>Sukhasha Kala Yoga</i>	Indicates normal seasons with their common properties.
<i>Vija Kshetra Guna Sampana</i>	Here having good conception without any complication and having good health condition of parents.
<i>Aahara Sampat</i>	Nutrition compliance diet will makes good indication of health
<i>Sharira Sampat</i>	Without any anatomical or physiological abnormalities also makes good <i>Bala</i> .
<i>Satmya Sampat</i>	Elements which became suitable for health makes good <i>Bala</i> .
<i>Satva Sampat</i>	Sound psychological health indicates good <i>Bala</i> .
<i>Swabhava Samdiddhi</i>	Activities for enhancing vitality like exercise.
<i>Youvana</i>	Life periods of a young human from age to 16-60yrs of age.
<i>Karma</i>	Works to improves bodily functions.

Viral Disease and Ayurveda w.s.r. to Covid-19

Cases of Covid-19 first emerged in late 2019, when a mysterious contamination was mentioned in Wuhan, China. The cause of the sickness turned into soon showed as a new kind of virus, and the contamination has in view that unfold to many nations around the sector and become a pandemic. On 11 February the World Health Organization introduced that the official name would be Covid-19, a shortened model of corona virus ailment 2019. The WHO refers to the Specific virus that causes this disease as the Covid-19 virus. This isn't the formal call for the virus – the International Committee on Taxonomy of Viruses calls it the “severe acute respiration syndrome corona virus 2”, or SARS-CoV-2, because it is associated with the virus that triggered the SARS outbreak in 2003. However, to keep away from confusion with SARS the WHO calls it the Covid-19 virus while speaking with the public. Early within the outbreak, the virus become referred to as 2019-nCoV with the aid of the WHO. The virus is also regularly referred to as the novel corona virus, Covid19 or simply the Corona Virus. On 11 March, the WHO announced that the outbreak should be considered a pandemic.

The most usually reported signs and symptoms include a fever, dry cough and tiredness, and in slight instances humans can also get aches and pains, nasal congestion, runny nose, sore throat or diarrhoea. In the most severe cases, people with the virus can develop difficulty breathing, and may ultimately experience organ failure. Some cases are fatal. The virus can also be asymptomatic, causing no noticeable illness in some people – however these humans are nevertheless contagious and may spread the virus. Covid-19 is a respiratory infection and is basically spread via droplets inside the air. These are commonly expelled when an infected person coughs or sneezes. Once signs and symptoms broaden, someone’s viral load declines steadily, and that they come to be an increasing number of less infectious. However, human beings appear to keep dropping the virus for around weeks once they recover from covid-19, both of their saliva and stools. This means that even as soon as a person’s signs and symptoms have

cleared, it could nonetheless be feasible to contaminate other human beings. People with slight or no signs and symptoms can have a totally high viral load of their top breathing tracts, which means they can shed the virus through spitting, touching their mouths or noses and then a floor, or likely talking. The corona virus has additionally been found to persist for days on surfaces, though that doesn't always imply those virus particles ought to nonetheless infect different humans. That may be dwindled by means of ultraviolet light, heat or humidity.

Most people recover (about 80%) from the disease without needing special treatment. Around 1 out of 6 people who gets Covid-19 becomes seriously ill and develops difficulty breathing. A small study of people who contracted covid-19 in Wuhan suggests that the risk of death increases with age, and is also higher for those who have diabetes, disease, blood clotting problems, or have shown signs of sepsis. To fight the new corona virus, researchers are investigating more than 60 drugs, including remdesivir and hydroxychloroquine and brand - new ones.

There are two main classification of disease in Ayurveda described as *Nija & Aagantuja Roga*.

The possible corelations with corona virus disease in Ayurveda according to aetiology or sign and symptoms are *Abhishagaja Jwara* and *Janapadodhwansa*. Acharya Sushruta has mentioned *Krutya* (wrong Karma), *Abhishapa* (curse), *Rakshas* (virus or bacteria), *Adharma* (non religiousy), *Krodha* (anger), *Vishayukta Vayu* (pollution) can cause *Marak (Janapadodhawansa / Pandemic)*.^[21] Because of this without disturbing balance of *Dosha* and *Manas Prakriti* subject can develop *Kasa* (cough), *Shwasa* (Breathlessness), *Vamathu* (Vomitting), *Pratishyay* (cold), *Shiroruka* (Headache), *Jwara* (Fever). This signs and symptoms resemble with the sign and symptoms of corona virus disease. Further Acharya explains *Upaya* for above situation which are *Sthanaparityaga* (Isolation i.e. stay away from affected area), *Shantikarma* (maintain peace), *Japa* (spiritual enchanting), *Hawan* (Disinfection), *Yadnya* (Disinfection / *Dhoopana*), *Tapa* (Austerity), *Niyama*

(General precaution rule), *Daya* (Humanity), *Dana* (contribution).^[22] Also, Acharya Sushruta has mentioned that if meat is contaminated it can cause serious illness including *Pratishyay* (cold), *Aruchi* (anorexia), *Shwasa* (breathlessness), *Tridosha Prakopa*, *Utklesha*.^[23] Some of this symptoms matches with corona virus disease symptoms. Acharya Charaka has explained for types of *Jwara*, corona virus disease can be included in *Abhishangaja Jwara* which is subtype of *Sannipatik Jwara* (*Jwara* due to *Tridosha*), in *Sannipatik Jwara* symptoms and condition of disease goes with *Kapha Ulbana Sanippatik Jwara*,^[24] symptoms can be divided into *Purvaroop* and *Roopa*. *Poorva Roopa* might include *Angamarda* (body ache), *Aalasya* (generalized weakness), *Agnimandya* (decreased appetite), *Hrullas* (vomiting), it is reported that some people complained of vomiting, diarrhoea, generalized weakness prior developing cough and cold. *Roopa* might include of *Jwara* (Fever), *Kasa* (cough), *Pratishyay* (cold). This are the main symptoms observed currently in corona virus illness.

The *Chikitsa Sutra* of *Sannipatik Jwara*^[25] is described as first one should treat *Kapha Sthana* as *Jwara* is *Aamashya Samudbhava* once *Kapha* is pacified, *Chikitsa* of *Pitta* and *Vata Dosha* should be given. Which includes of *Langhana* (Light Diet), *Pachana* which can be done with *Pachak Aushadi* or *Ushnodaka* also, as *Ushnodaka* is described as *Deepak* and *Pachaka* in context of *Jwara* itself and *Shodhana* can be done according to *Dosha* and *Rogi Awastha*. The preventing medicine for COVID-19 includes immunomodulator as drugs like *Haridra*, *Tulsi*, *Pippali*, *Guduchi* etc., also daily practice of *Yogasana*, *Pranayama* and Meditation for at least 30 mins. Procedures like *Pratimarsha Nasya* may act as preventing factor.

Evidences where various life style and drugs indices good immunology

Sleep and immunity^[26]

Studies revealed a selectively enhancing influence of sleep on cytokines promoting the interaction between antigen presenting cells, like interleukin. Sleep and

the circadian system exert a strong regulatory influence on immune functions. The immune parameters like undifferentiated native Tcells and the production of pro-inflammatory cytokines exhibits peak during early nocturnal sleep whereas circulating numbers of immune cells with immediate effect or functions, like cytotoxic natural killer cells as well as anti-inflammatory cytokine activity peak during day time wakefulness.

Exercise and immunity^[27]

Moderate exercise seems to have a beneficial effect on the immune functions, which could protect against upper respiratory tract infection. Exercise effects has effects on both the humoral and the cellular immune system.

Ayurveda drugs and immunology^[28]

A number of drugs as *Rasayana* and *Ojvardhak* are described in *Ayurveda*, which are claimed to possess immune modulatory effect. Some studies were found to be possess immune modulatory effects are *Aswagandha* (*Withania somnifera*), *Tulasi* (*Ocimum sanctum*), *Guduchi* (*Tinospora cordifolia*), *Pippali* (*Piper longum*) and *Punarnava* (*Boerhaavia diffusa*).

The active principle of *Guduchi* (*Tinospora cordifolia*), an important *Rasayana* drug, have been found to possess anti complementary and immunostimulating activities. Studies on the extracts of *Guduchi* reported antidiabetic, anti-inflammatory and hepatoprotective activities. The potent antiphlogistic and antiallergic activity of the flavonoid wedelolactone from *Rasayana* drug *Bhringraj* (*Eclipta alba* and *Wedelia calandulacae*) was found to be due to its 5-lipoxygenase inhibitory activity, suggesting that it act by free radical scavenger mechanism. *Yastimadhu* (*Glycyrrhiza glabra*) an important *Rasayana* drug has been found to be immune stimulative, which accelerate lymphocytic transformation activation of macrophage and increases the leucocytic count. A trial study with combination of *Rasayana* drugs - *Aamalaki*, *Vidanga* and *Ativala* have shown an increase in immunoglobulin levels in infants which is significantly greater than that of multivitamin used cases. A combination of four important *Rasayana*

drugs viz. *Guduchi*, *Ashwagandha* and *Tulasi* in equal amount was found to potentiate both the cellular and humoral components of immunity.

SN	Herb Name	Botanical Name	Part used	Active Chemical Constituents
1.	<i>Amrita/Guduchi</i>	<i>Tinospora cordifolia</i> Miers. (Menispermaceae)	Entire herb	Alkaloidal constituents such as berberine, tinosporic acid
2.	<i>Tulasi</i>	<i>Ocimum sanctum</i> Linn. (Labiatae)	Entire herb	Essential oils such as eugenol, cavacrol, derivatives of ursolic acid, apigenin
3.	<i>Shatavari</i>	<i>Asparagus racemosus</i> Wild. (Liliaceae)	Roots	Saponins, sitosterols
4.	<i>Brahmi</i>	<i>Centella asiatica</i> Linn. (Umbelliferae),	Herb	Triterpenoid saponins
5.	<i>Kutki</i>	<i>Picrorhiza scrophulariiflora</i> Benth. (Scrophulariaceae)	Roots	Iridoid glycosides, amphicoside
6.	<i>Arjuna</i>	<i>Terminalia arjuna</i> Roxb. (Combretaceae)	Leaves, bark	Flavonoids, oligomeric roanthocyanidins, tannins
7.	<i>Kaalmegha</i>	<i>Andrographis paniculata</i> Nees (Acanthaceae)	Leaves	Diterpenes

)		
8.	<i>Naagabala</i>	<i>Urena lobata</i> Linn. (Malvaceae)	Roots, flower s	Flavonoids
9.	<i>Shankhpus hpi</i>	<i>Evolvulus alsinoides</i> Linn. (Convolvulac eae)	Herb	Alkaloids
10.	<i>Pipali</i>	<i>Piper longum</i> L. (Piperaceae)	Fruits	Alkaloids
11.	<i>Roseroot</i>	<i>Rhodiola imbricate</i> Gray. (Crassulaceae)	Rhizo mes	Phenolics
12.	<i>Bhringraja</i>	<i>Eclipta alba</i> L. (Compositae)	Flower s	Triterpenoi d glucoside
13.	<i>Punarnava</i>	<i>Boerhaavia diffusa</i> (Nyctaginace ae)	Herb	Alkaloid
14.	<i>Kumari</i>	<i>Aloe vera</i> Tourn.ex Linn. (Liliaceae) leaves, emmenagogu e,	Kumari Gel	Anthraquin one Glycosides

DISCUSSION AND CONCLUSION

From the manifestation of disease to its possible management was described in literature. Not only description of disease, pathology but also specific lifestyle to maintain healthy was elaborated. In this era the developed contemporary health care system is very much appreciated but the Indian traditional medicines also reflects the same methodologies to be healthy. Here focus is to develop a way to understand

how Ayurveda describes development of pathologies, factors to influence it and factors to depress it with its care by principles. Various aetiologies caused for disease progression may include exogenous, endogenous, iatrogenic, disease of unknown origin, autoimmunological, immunodeficiency disorders. Here in Ayurveda *Nija* and *Agantuja* are two main differentiation of diseases.^[29] Where *Nijarogas* are comes under depletion of *Dosha* present in bodies and *Agantujarogas* are due to endogenous factors like *Abhigatajanya* (due to trauma), *Abhishapa* (due to curse), *Abhisanga* (due to foreign materials), *Abhichara* (due to bad culture).

For management protocol Ayurveda describes all aetiological factor leads to vitiation of *Dosha*, as well *Agantujavyadhis* are also undergone to *Nijavyadhis* in future.^[30] So management could be only as per *Doshadushti*. During management other factor have to be in mind for better prognosis. Here consideration of immunity and concept of *Agantuja Vyadhis* come out with references to viral infections.

With proper *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), *Aahara* (diet), *Nidra* (sleep), *Bramhacharya* (sexual indulgence), *Achara Rasayana* (behavioural), *Desha* (places where resides), *Kala* (time of treatment) will keep individual healthy along with different medication based on pathologies.

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