



**PROMOTION OF WELLNESS TOURISM IN AYURVEDA WITH
SPECIAL REFERENCE TO PANCHAKARMA OF COVID-19
PANDEMIC- A REVIEW**

Pradeep HLNR^{1*}

Wickramasinghe MRM.²

¹Unit. of Allied Sciences, Institute of Indigenous Medicine, University of Colombo.

²Unit. of Allied Sciences, Institute of Indigenous Medicine, University of Colombo.

ABSTRACT

Ayurveda, science of healing and rejuvenation, gained global attraction over the years. Today world is searching of systems of natural healing for strengthen and boost up immune system of human body for fighting against viral infectious diseases for instance corona pandemic on going globally. Sri Lanka has been achieved great destination for medical tourism recently, due to several pull factors such as easily accessible residential hotels with excellent *Ayurveda* and indigenous treatment at low cost with hospitality. Among these preventive and curative medical services, *Panchakarma* and *Purva Karma* are considered high demand among tourists with various fumigations methods such as using powders of air dried herbal plants; *Osimum tenuiflorum*, *Vitex negundo*, *Justicia adathoda* and *Eucalyptus globulus*, *Azadirachta indica* and *Brassica jounce* to be used. The objectives of this study were to review procedure of introducing Dietary and *Panchakarma* and *Purva Karma* in *Ayurveda* for immunity boosting treatment for management in related to COVID- 19, to apply *Panchakarma* to prevent cross contamination and transmission of COVID- 19 virus to make sure the health and safety for tourist against COVID- 19 and to identify the process to promote wellness tourism by using *Panchakarma* procedure. This study was carried out as a survey study and data were collected from 10 health resorts in Sri Lanka. Collected information which related to *Panchakarma* treatment modalities, Hotels and Spa operations, with the standards of Sri Lanka tourism development authority (SLTDA) and WHO statistics. Sri Lanka reopened its boundaries on 21st January 2021, European arrivals was 85.7 % and considering first two months of the year arrivals tumbled by 98.8%. As per the survey it has revealed *Panchakarma* modalities could be implemented in various aspects of based on immunity boosting treatments and management based on to prevent cross contamination and transmission of virus at the hotels, Spas, domestic clinics using *Poorva karama* treatments. It can be concluded that the *Panchakarma* can be applied with health and safety measures for management and prevention of COVID 19 and other epidemics in order to promote wellness tourism in Sri Lanka

Keywords: *Ayurveda*, Wellness tourism, *Panchakarma*

INTRODUCTION: *Ayurveda* is an eternal science based on laws of nature that has unique scientific foundation. Being the nature of existence is true, therefore this science is also true and eternally acclaimed¹ and it is holistic, Inseparable system of healing that originated in India; it is the Science of life. Main goal of *Ayurveda*

is to prevention, better than cure and to assist nature and not to disturb the natural process of living and healing. All *Ayurveda* therapeutic measures are used for support the natural process of human being. The healing process of *Ayurveda* are subsidized in three ways. First step is to detoxify the body by eliminating all metabol-

ic waste products more effectively and quickly. This is implemented through the help of five cleansing procedures called *Panchakarma* therapy which are antecede by preliminary procedures such as *Snehana* (Oleation therapy) and *Sweadhana* (sudation therapy). The second step is to tranquilize the aggravated *Doshas* – bio humors- *Vata*, *Pitta* and *Kapha* respectively to interrupt disease process. The third step is strengthen the power of resistance of the mind and body for the purpose of maintain the natural health status of the person. In *Ayurveda* authentic text *Caraka Samhitha* emphasized the concept of *Vyadikshamathwa* that resistance to disease with preserving health “*Swasthasya swasthya Rakshanam*” and to increase immunity and resistance power “*Vyadhi Kshamathwa*” and to cure disease “*Aturasya Vyadhi parimokshah*”². According to WHO (World Health Organization) statistics more than One Hundred eighty three millions infected people have been reported and more than three million death confirmed globally^{3, 4}. (Table – 2). Corona viruses are the members of family Coronaviridae with distinctive morphology and enveloped single strand RNA virus visible by electron microscope as large pleomorphic particle with a characteristics Corona (Crown) projecting as a single or Double fringe and may causes a broad spectrum of Animal and Human diseases^{5,6}. Corona viruses are classified mainly in to three groups locate on their antigenic relationships of the spike (S). Membranes (M) and Nucleocapsid (N) protein. The HCo Vs 229E are group one coronavirus and OC43, HKU-1 and SARS Co-V (Severe Acute Respiratory Syndrome) Corona virus are in group two and avian species are classified in group three. Until 2003

corona viruses may cause only mild respiratory and tract infection and globally endemic, then conclusively due to the SARS –Corona virus in 2003 and became emergency due to the Middle East Respiratory Syndrome caused by novel Coronavirus (MERS CO-V) that was first identified in Saudi Arabia in 2012⁷. Now the ongoing COVID 19 Disease became globally pandemic in Human that was first identified in the city of Wuhan in China in 2019 which is the new coronavirus Disease. Novel Corona virus that causes COVID- 19 Disease spread person to person by several ways, most commonly the droplets or aerosol transmission and airborne, fecal- oral transmission and surface contamination transmission which in enter the nasal mucosa, oral cavity and mucosa of the eye through touch⁸. The COVID -19 potential of transmission is much higher and contagious compare with other type of corona virus⁹. As the result, the estimated doubling times range from 6.4 to 7.4 days¹⁰.

Ayurveda Panchakarma with Purva Karma:Preparation treatment are highly advantages clinically to prepare the body for actual detoxification *Panachakarma* procedure to be done. Two procedures are (I) *Snehana* – internal and external oil application (*Abhyanga* –therapeutic oil massage) make the superficial and deep tissues soft and increase the blood circulation to remove the toxin from the body. (II)*Swedhana* - sudation is given following the *Snehana*. Herbal steam water may liquefying the toxins from the individual. & increases the movement of toxins in to the nearest exit point where eliminate the toxins. *Panchakarma* – (Main procedure) such as *Vamana* (Emesis Therapy), *Virechana* (purgation therapy), *Nasya* (Nasal Cleansing Therapy) and *Vasthi* (Enema

Therapy). Ayurveda therapeutic vomiting – (Vamana) to be done to eliminate the excess *kapha* which is causing the excess mucus associated diseases. When excess pitta is accumulated in the gallbladder, liver, small intestine it may results to, inflammatory diseases. Ayurveda emphasises in those conditions successfully treated by the administration of therapeutic purgation or therapeutic laxative the nasal administration of medication is called *Nasya*. An excess of *kapha* accumulated in the upper chest and head region (sinuses) is eliminated by the accessible opening the Nose. *Vata dosha* predominant site is the colon. *Vasti* may apply as oil or herbal decoction in to the rectum. In Ayurveda the blood is said to be carrier of *Ayu* or life, so its condition directly effect the four parts of life. Soul(*Atman*), mind(*Manas*), senses (*Indriyas*), body (*Sharira*). good blood free from toxins and waste products, sustains life the helps maintain the physiological balance necessary for health. This treatment aims of removing pathological blood. *Panchakarma* is advocate for healthy persons & also as preventive treatments to keep the person physically & mentally fit & energetic. *Paschat Karma* (Post procedure) comprises dilatory management to restore the digestive fire. Benefits of the *Panchakarma* as follows, balance the *Doshas* (*Vatta*, *pitta*, *kapha*), clean the channels (*Srothas Shodhana*) eradicate the cause of diseases and improve immunity^{11,12,13}.

Ayurveda and Immunity: *Prana*. *Agni* (Digestive fire) and *Ojas* together energize the immune system and *Ojas* is the invisible source of physical and mental strength and energy to protect the man against external pathogens, *Agni* is the immune system when activated which is able to burn

and destroy the toxins and *Prana* is the long-term activated form of the immune function to protect and develop of life energy within the Human being. *Ojas* is defined as primal invisible vigor and subtle energy of the *Kapha* which is the internalized essence of the *Saptha dathu* and on an inner level of the body *Ojas* governs the all-higher faculty of the awareness in individuals. According to Ayurveda classics it's described as natural immunity against disease and resistance to decay and degeneration of the living being¹⁴. According to Acharaya Charaka describes *Ojas* as potential ability or resistance to defense ourselves against external pathogens like as endurance, resistance, and strength to ward off disease. The resist disease manifestation (*Vyadhibalavirodhitva*) acts in two ways, (I) *Vyadhibala virodhitva* – act against the virulence of the disease (II) *Vyadhi uthpadaka vibandhakathva* - capacity to inhibit bind the disease causative factor most probably the pathogens¹⁵.

Ayurveda and Tourisms: Ayurveda is the science of life and has gained global magnetism over the years. Today the world is searching of natural healing system for strengthen immune system and boosting up it for fighting against any infectious diseases. Sri Lanka is an emerging as a great destination for medical tourism because it has several pull factors such as excellent medical treatment at low cost, *Swedana Karma*, *Sneha Karma*, remedies like herbal fumigations, hospitality and easy accessibility. Tourism was the third largest earning for the country in 2019 and foreign exchange earnings of the tourisms sector decreed to 13.7% from the total foreign exchange earnings compared to 15.9% recorded in the previous year. The official tourist receipts for 2019 were esti-

mated at Rs.646, 362 million as compared to RS.711,961 million in 2018 with a decline of 9.2% but the capita tourist receipts payday amounted to 181.2 US\$, showing an increase of 4.2 % as compared to US\$ 173.8 in 2018¹⁶. Sri Lanka reopened its boundaries on 21st January 2021, European arrivals was 85.7 % and considering first two months of the year arrivals tumbled by 98.8%.

OBJECTIVES: The objectives of this study were to review procedure of introducing dietary and *Panchakarma* and *Purva Karma* in *Ayurveda* for immunity boosting treatment for management in related to COVID- 19, to apply *Panchakarma* to prevent cross contamination and transmission of COVID- 19 virus to make ensure the health and safety measures of tourist against COVID- 19 and to identify the process to promote wellness tourism by using *Panchakarma* procedure.

METHODOLOGY: This study was carried out as a survey study and data were

collected from 10 health resorts in Sri Lanka. Collected information which related to *Panchakarma* treatment modalities, Hotels and Spa operations, Sri Lanka tourism development authority (SLTDA) and WHO statistics. Modern and Ayurveda classical texts Mainly (Charaka Samhitha) published journals, research papers related to Tourism industry were reviewed.

RESULTS AND DISCUSSION:

Swedhana such as herbal inhalation is the preliminary procedure of the *Panchakarma* can be used to prevention of spreading Corona Virus person to person and to inactivate the virus at the nasal mucosa to stop entering to the Lung System to minimize the complication because heat denature the protein capsule of the virus that leads to loss of infectivity of the SARS -Cov¹⁹. Temperature between 57C° – 75C° corona virus to be natured and its depends on the time duration of the heat exposure^{18, 19}. (Table 1)

Table – 01 Exposure temperature & Time duration for inactivation Corona Virus.

Temperature		Duration (Minutes)	Type of Virus
C°	F°		
56	133	10	SARS-Cov (Urbani strain) ¹⁸
56	133	20	SARS-Cov (Urbani strain) ¹⁸
65	149	03	SARS-Cov (Urbani strain) ¹⁸
75	167	15	SARS-Cov (Urbani strain) ¹⁸
56	133	60	Canine Corona virus ¹⁷
65	149	40	Canine Corona virus ¹⁷
75	167	15	Canine Corona virus ¹⁷

According to this research finding and literature review of *Panchakarma* preliminary procedure of herbal Inhalation (*Swedhana Karma*) fortified with Ginger, Mint leaves, Basil leaves and *pathpadagam* and dry coriander- Annexure (I) scientifically can be used to inactivate the virus at the Nasal Mucosa with temperature of the steam maintained at 55 –

65C° duration of 20 minutes three times a day with seven consecutive days. Herbal steam water may liquefying the toxins from the individual. & increases the movement of toxins in to the nearest exit point where eliminate the toxins by *Nasya Karma* (Nasal Cleansing) under standard sanitary condition and proper clinical waste management method. All *Panchak-*

rma Treatment to be done under supervision of qualified Ayurveda Doctors and with COVID -19 health and safety Guidelines and all staff strictly adherence to the Guidelines to prevent cross contamination of the Virus. *Panchakarma* and wellness treatment only perform at safe and secure Level one hotel in Sri Lanka and well trained therapist, Doctors and other relevant staff strictly adhered to health guideline given by the Sri Lanka tourist board authority^{20,21}. First PCR test will be done as soon as possible after arrival of guest

and negative result compulsory to start the wellness treatment and *Panchakarma* package. Level one hotel are closely monitoring by the Sri Lanka tourist board authority and western Medical Doctor who working as an emergency care physician. Especially all therapist and the Ayurveda medical staff working as 14 days duty schedule to minimize the cross contamination and as a quarantine procedure within the Hotel premises. Therapist are allocated for individual guest to avoid cross contamination.

Table (02) –COVID-19 Pandemic situation by WHO Region.

Name	Cases – cumulative Total	Cases –Newly Reported in last 24hrs	Death Cumulative Total	Death – Newly reported in Last 24hrs
Global	183,934,913	326,231	3,985,022	6,347
Americas	73,013,453	82,556	1920,222	2,498
Europe	56,422,101	72,237	1,190,978	1,020
South-East Asia	35,398,817	88,244	499,100	1,568
East Mediterranean	11,207,055	38,973	219850	497
Africa	4,224,102	26,551	98,718	574
Western pacific	3,668,621	17,670	56,141	190

To enhance and maintain the immunity is the one of the effective most important way to fight against infectious disease like Corona viruses. Increase *Ojas* potential ability or resistance to defense ourselves against external pathogens is more important and *Virechana* Therapy is restore the digestive fire and emanating of the gut toxins. *Agni* is the immune system when activated which is able to burn and destroy

toxins. It is responsible for the inner type of fire that the body produces to destroy the pathogens that attach it. Considering all important physiological function of the *Agni*, *Ojas* and different *Panchakarma* procedures, following Treatment package (Post COVID -19 Complication- Table 03) Diet plan was implemented to enhance the immunity system (Table 04,05 and 06)

Table -03 -Following Ayurveda packages will be provided for the post COVID-19 complication

Inclusions	06 nights/07 days light immunity booster (no of treatments)	13 nights / 14 Intensive immunity booster (no of treatments)	20 nights/21 Intensive immunity booster (no of treatments)
Consultation initial	01	01	01
body constitutional check-up	01	01	01
• Head abhyanga or special	04	08	13

massage			
• face abhyanga or special massage	04	08	12
Body abhyanga	03	06	11
Herbal steam	04	04	07
Herbal thermo	01	03	04
Foot abhyanga	02	04	06
Herbal bath	01	02	04
Special herbal inhalation	02	04	09
Shirodhara/shiro vasthi	02	04	06
Internal oleation	No	03	03
Virechana (normal/mild)	Mild	01 (normal)	01 (normal)
Vasthi	01	03	05
• Nasya (nasal cleansing)	applicable with special health guidelines	applicable with special health guidelines	applicable with special health guidelines
➤ Pichu/grreva vasthi	No	02	06
Body scrub	01	01	01

Facilities included of above packages as follow. Breakfast, lunch and dinner individually catered according to your body constitution & immunity boosting traditional based Sri Lankan food. Daily yoga session (01 hour – immunity boosting

yoga poses.) Immunity boosting herbal teas /drinks, if recommended by doctors. Internal /external immunity boosting herbal medications, if recommended by doctors. Meditation session with reacted to stress management and boosting immunity.

Table 04- Ayurveda Meal Plan Immunity Booster Package
Breakfast – 03 Days Breakfast / Day 01

FRUIT JUICE	Kakiri	250 ml
FRUIT PLATTER	Papaya, star fruit, mango, Embilla,lawalu	100g
PORRIDGE	Suwandal rice with hinundupiyaliya porridge	25ml
MAIN DISH	Nilkatarolu string hoppers served with aushada hoddha and coconut sambol	100g
HERBAL TEA		

BREAKFAST / DAY 02 (Mild cleansing & detox day)

FRUIT JUICE	No (due to Virechana)	
FRUIT PLATTER	No (due to Virechana)	
PORRIDGE	No (due to virechana)	
MAIN DISH	Samaposhu roti served with green jack fruit black curry and red onion	300g
HERBAL TEA	Beligata mada tea	

BREAKFAST/ DAY 03

FRUIT JUICE	Kirala juice	250 ml
FRUIT PLATTER	passion fruit, papaya, nelli,guawa, Ugurassa	100g
PORRIDGE	Wild eggplant with pachaperumal traditional rice porridge	250ml
MAIN DISH	Seeni sambol stuffed beet root milk rice served with cashew vege-	200g

	table curry	
HERBAL TEA	Nil kaatarolu tea	

Table – 05 -Ayurveda Meal Plan / Immunity booster package

LUNCH -03 Days

DAY 01

STARTER	Wing beans sambol stuffed with curry leaves	80g
SOUP	Ginger ,coriander vegetable	200 ml
MAIN DISH	Goda hinati rice, wing beans dry curry/pumpkin mustard curry/ thumba karavila tempered/ mixed leaves(kuppamaniya, kathuru-murunga, anguna kola,mukunuwanan) tempered	200 g
DESSERT	Mango & resin jelly	100 g
HERBAL TEA	Ginger +belimal	

DAY 02/ LUNCH (Mild cleansing day, detox)

STARTER	No (due to Virechana)	
SOUP	No (due to virechana)	
MAIN DISH	Rice porridge – 3 times day	250 ml
DESSERT	No (Virechana)	
HERBAL TEA	Coriander ginger tea	

DAY 03/ LUNCH

STARTER	Snake gourd sambol stuffed with ridge guard	50g
SOUP	Leeks and sweet potato	250 ml
MAIN DISH	Ghee rice (sudu hinati) Polas ambula/murunga white curry/ ela batu baduma/ green gram dry curry, kola mailman (anguna-kola, cassava leaves, passion fruit levees)	250 g
DESSERT	Ambilla, Madan, Mora,with cut fruit papaya	80 g
HERBAL TEA	Hinaratha +Raskindha	

Table 06 -Ayurveda Meal Plan - Immunity booster package

DINNER– 03 Days

DAY 01

STARTER	Avocado and tomato salsa	80 g
SOUP	Pumpkin and red kidney beans soup	200 ml
MAIN DISH	Finger millet roti served with cow pea anama and chilli sambol	200 g
DESSERT	Cut fruit (papaya, guava, banana)	200 g
HERBAL TEA	Maringa tea	

DAY 02 – DINNER (Mild cleansing/detox day)

STARTER	No (due to virechana)	
SOUP	Mixed vegetable soup	250 ml
MAIN DISH	Boiled vegetables	250 ml
DESSERT	No (Virechana)	
HERBAL TEA	Cinnamon with curry leaves	

DAY – 03 - DINNER

STARTER	Vegetable pakora	50g
---------	------------------	-----

SOUPE	Ginger and carrot soup	250 ml
MAIN DISH	Vegetable ghee dosai served with mixed vegetable curry and red coconut chutney	250 g
DESSERT	Semolina pudding	60g
HERBAL TEA	Ranawara tea	

Annexure (01) – Meal Plan -Herbal plants - Sinhala & Latin name.

Hinundupiyaliya	<i>Desmodium triflorum</i>
Nilkatarolu	<i>Clitoria ternatea</i>
Jack fruit	<i>Artocarpus heterophyllus</i>
Beligata	<i>Aegle marmelos</i>
Thumba karavila	<i>Momordica dioica</i>
Kuppamaniya	<i>Acalypha indica</i>
Kathuru murunga	<i>Sesbania grandiflora</i>
Anguna kola	<i>Wattakaka volubilis</i>
Mukunuwanna	<i>Alternanthera sessilis</i>
Ranawara	<i>Senna auriculata</i>
Ginger	<i>Zingiber officinale</i>
Basil leaves	<i>Ocimum basilicum</i>
Mint leaves	<i>Mentha</i>
Pathpadagam	<i>Oldenlandia corymbosa</i>
Dry coriander	<i>Coriandrum sativum</i>

CONCLUSION: It can be concluded that the *Panchakarma* can be applied with health and safety measures for management and prevention COVID 19 and other epidemics in order to promote wellness tourism in Sri Lanka because Ayurveda mainly focus to prevention Better than cure. Prevention of any infection diseases totally depends on the individual immunity level and traditional immunity based diet plan and *Panchakarma* procedures played a major role in immunity system.

REFERENCES

- 1.Charka Samhita (Ayurveda Dipika Commentary by Chakrapanidatta) Yadavaji Trikamji, editor. 1st ed. Varanasi: Chaukhamba Surbharti Prakashana. Su; 30; 27
- 2.Charka Samhita (Ayurveda Dipika Commentary by Chakrapanidatta) Yadavaji Trikamji, editor. 1st ed. Var-
- nasi: Chaukhamba Surbharti Prakashana. Cs; su; 30; 26
- 3.<https://www.who.int/emergencies/diseases/novel-coronavirus-2019> -06.27PM; CEST, 06th July 2021.
- 4.<https://covid19.who.int/table> (06.07.2021 10.10 hrs.)
- 5.Fenners & White's Medical Virology 05th Edition) 2017, Page – 437 -446.
- 6.Ruth F.Bishop in Encyclopedia of Virology (02nd Edition) 1998.pg 441- 449
- 7.J.S.M.Peris, In Medical Microbiology (18th Edition) 2012, Churchill, Livingstone. Page -587-593.
- 8.<https://www.webmd.com/lung/coronavirus-transmission-overview#1>;08.07.2021
- 9.Fang, Y. Nie, and M. Penny, "Transmission dynamics of the COVID-19 outbreak and effectiveness of government interventions: a data-driven analysis," *Journal of Medical Virology*, vol. 92,

no. 6, pp. 645–659, 2020. View at: Publisher Site | Google Scholar

10. J. T. Wu, K. Leung, and G. M. Leung, “Now casting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan, China: a modelling study,” 2020, <http://www.thelancet.com>. View at: Publisher Site | Google Scholar

11. Treatise on Ayurveda, Srikantha Arunachalam, (Revised Edition August 2014),Vijitha Yapa Publicaions, Colombo, Sri lanka, pg 155-159

12. Health & Harmony through Ayurveda, Dr.Amil.K.mehetha, Dr.NK.Guptha, Dr.RN.Sharma (second edition 2003) J.J, Offset printers, Delhi, Pg.409-439

13. Ayurveda Healing Comprehensive guide, David Frawlry, 2000. Motilal banarsidass, Delhi, pg-117- 121

14. Charka Samhita (Ayurveda Dipika Commentary by Chakrapanidatta) Yadavaji Trikamji, editor. 1st ed. Varanasi: Chaukhamba Surbharti Prakashana. Sutrasthana
28; 07, 17; 14, 15. 30; 8 -12

15. Chakrapanii on charkas chikithsa 3; 166 and Charka sutra 30; 08

16. Annual statistical Report- 2019- cover & Back –new-16.12.2026 <https://www.sltda.gov.lk/en/annual-statistical-report> - 08/07/2021

17. Marca, Giancarlola et al. (2020) Thermal inactivation of SARS-COVID-2 virus:

Are steam inhalations a potential treatment? *Life Sciences*. <https://doi.org/10.1016/j.lfs.2020.118801>,<https://www.sciencedirect.com/science/article/pii/S002432052031554X?via%3Dihub>

18. Using heat to kill SARS-CoV-2 John P. Abraham,¹ Brian D. Plourde,¹ and Lijing Cheng² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7361064/#rmv2115-bib-0009>

19. Pratelli A. Canine coronavirus inactivation with physical and chemical agents. *VetJ*. 2008; 177:71- 79. [PMC free article] [PubMed] [Google Scholar]

20. <https://www.srilanka.travel/helloagain/15.09.2021>

21. <https://srilanka.travel/safe-and-secure/15/09/2021>

Corresponding Author: Dr. H L N. R. Pradeep,Address: Unit of Allied Sciences, Department of Ayurveda, Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka.

Email:ranganapradeep202114@gmail.com

Source of support: Nil

Conflict of interest:

None Declared

Cite this Article as : [Pradeep Hlnr et al : Promotion of Wellness Tourism in Ayurveda With Special Reference to Panchakarma of Covid-19 Pandemic- A Review] www.ijaar.in : IJAAR VOL V ISSUE III JUL-AUG 2021 Page No.157-165