



Effective Ayurvedic Approaches For Managing Vipadika: A Case Report

Dr.Pankaj singh Kushwaha¹,prof.R.K. Joshi²,Dr.Harish Bhakuni³,Dr.Pooja lekhak⁴,dr.Tanya panchpuri⁵

^{1,4,5}PG Scholar, department of kayachikitsa, NIA, Jaipur, India,

²Professor & HOD, P.G Department of Kayachikitsa, NIA, Jaipur, India,

³Associate Professor, P.G Department of Kayachikitsa, NIA, Jaipur, India,

ABSTRACT- In *Ayurveda* *Tvak* is correlated to skin and all *Tvak Vikara* (Skin diseases) have been discussed under the chapter *Kushta*. *Ashtanga Hridaya* describes 18 types of *Kushta*, 7 *Maha kushta* and 11 *Kshudra kushta*. *Vipadika* is described under *Kshudra kushta* characterized by *Panipadspatana* (cracks over palms and soles), *Tivra Vedana* (severe pain), *Manda kandu* (Mild Itching), and *Sarag Pidika* (red coloured macule). Psoriasis is a chronic skin disease characterized by dry reddish patches covered with scales. A Palmoplantar Psoriasis is a chronic variant of psoriasis that mostly affects the skin of the Palms and Soles. It can be correlated with *Vipadika*. Skin diseases hamper daily activities. They have negative impact on the physical, emotional and psychological wellbeing, around 5% of all the Psoriasis. A 44 years old male patient came to OPD with c/o blackish skin lesion with itching and burning sensation in both the palms & elbows along with cracking of skin & redness 5 years. *Shodhan Chikitsa* as well as *Shamana Chikitsa* were implemented. Significant improvement was noted on skin condition. Therefore, *Vipadika* can be managed effectively with *Ayurveda* interventions.

KEYWORDS- *Vipadika*, *Kushta*, Palmoplantar Psoriasis, *Shodhan Chikitsa* *Shamana Chikitsa*,

Introduction- *Vipadika* is a common skin condition characterized by *Pani-Padashphutana* (cracks over palms and soles), *Tivra Vedana* (severe pain), *Manda kandu* (Mild Itching), and *Sarag Pidika* (reddish eruptions). It is one of the 11 *kshudra kushthas* (skin diseases) described in *Ayurveda*.

Samanya Chikitsa (general treatment) includes *Raktamokshana*, *Virechana* and *Snehapana* prepared with *vamana* and *taila* or *gritha* as first-line treatment^[1,2,3]. *Shamana chikitsa* involves *Abhyantara chikitsa* (internal administration) with *ghrita*'s (ghee) like *Panchatikta ghrita*. The symptoms of this disease are more or less similar to the palmoplantar psoriasis (PPP) variant of psoriasis. It is characterized by involvement of the skin and muscles of the palm and has a hyperkeratotic, pustular or mixed morphology. It is known that it is caused by a combination of genetic and environmental factors. Most patients with palmoplantar psoriasis and palmoplantar pustulosis report symptoms that include itching, pain, and cracks. Although intermittent discharge may occur, persistent attacks are common. Patients may get sick more due to seasonal changes, housework and cleaning staff. In fact, palmoplantar psoriasis is more common among farmers, care workers, and housewives. It affects people of all ages, and the average age of onset of palmoplantar impetigo is between 20 and 60. Although the condition has not been conclusively established, palmoplantar variant psoriasis accounts for 3% to 4% of all psoriasis cases and affects 2% to 5% of the population^[4].

Case History - A case of a 44-years-old male who is a home maker, from sikar Rajasthan, presented to OPD during November 03rd, 2023 with blackish skin lesion with itching and burning sensation in both the palms & elbows along with cracking of skin & redness since 5 years. He was also a known case of Type 2 Diabetes Mellitus since past 2 years. He took conventional treatment regimens for skin condition from nearby clinic with no improvement. Therefore, he visited our OPD for further management. Family history was negative for similar conditions.

Physical examination reveals non uniform erythematous scaly patches involving the both the palms and with few small lesions on elbows with itching and burning sensation. Laboratory investigations report found increase in glucose level and ESR.

Table 1 Genarl and vitals examinations

General condition	Good
Appetite	Poor
Diet	Vegetarian
Bowel	Incomplete evacuation
Bladder	Clear
Sleep	Disturbed
Addiction	Not any
Pulse	84/ min
B.P	120/80 mm/hg
Weight	55 kg
Hight	152 cm
Temperature	98.6F ⁰
Past illness	T2DM
Family history	Not any

The case was treated with *Ayurvedic* medicines on the line of management of *Vipadika kshudra kushta* with administration of following interventions involving drugs such as *Vyadhi haran rasayan 250 mg + shuddha gandhak 250 mg+ mukta shukti pisti 250mg + triphla churan 2 gm orally twice a day, madhumehari churan 2 gm + ojaswani churan 2 gm orally twice a day, Panchatikta ghrita 10 ml orally twice a day, Kutki vati 2 tab HS Lukewarm water, Nimba taila and Tuwaraktaila twice a day application twice a day. After 1 months Virechan karma was done. Deepana and Pachana was done with Panchkol churna 3 gm orally twice a day for 5 days then Snehapana (Internal oleation) starting with 30 ml and increased by as per Koshtha and Agni for 5 consecutive days (in increasing dose) for 7 days, Sarvang Abhyanga (therapeutic massage) with Jatyadi Taila and Sarvang Vashpa Swedan (sudation therapy) for 3 days. Lukewarm oil is poured all over the body and a gentle message was given for 20 minutes per day. Sudation therapy was given with the steam of Dashmool kwath for 10 minutes or as long as the patient feel comfortable for 3 days, Virechana Karma with 1 tab Abhayadi modak and 2 tab Virachani vati with 70 ml Triphladi kwath ,after Virechan karma Sansarjana Krama was started for 5 days. The outcome was measured based on symptomatic relief in signs and symptoms based on PASI scoring. The patient had reported complete relief from the acute phase after 45 days of treatment and complete remission of cutaneous lesions was observed by the end of 3 months of treatment phase.*

Table 2 Treatment Plan

S.no	DRUG	DOSE AND FREQUENCY	ROUTE OF ADMINISTRATION	ANUPANA
1	Vyadhi haran rasayan Shuddha gandhak Mukta shukti pisti Triphala churan	250 mg 250 mg 250 mg 2gm 1X 2	Oral,before meal Twice a day	Lukewarm water
2	Pramehprahara churna + Ojaswani churan	2 gm 2 gm	Oral,before meal Twice a day	Lukewarm water
3	Panchatikta ghrita	10 ml	Oral,before meal Twice a day	
4	Kutki vati	2 tab	Oral, After meal Ones time a day	
5	Nimba taila +Tuwaraktaila	QS	Local application	

Table 3 Virechan karma

Procedures	Drug	Dose	Durations
Deepana And Pachana	Panchkol churan oraliy twice a day	3 gm	5 day
Snehapana	Go Ghrita as per Koshta and Agni (in morning with empty stomach Anupan- Lukewarm water	30 ml	5 day
Abhyanga & Swedana	Abhyanga With jatyadi Taila and Sarvanga Sweda	(35 min) (10- min)	3 day
Virechana Karma	Abhyadi modak Virachani vati Triphla kwath	1 tab 2 tab 70 ml	1 day
Sansarjana karma	Diet as per Avar Shudddhi		5 day

Table 4 Physical examination

Ashtavidh pareeksha	Lakshana
Nadi	84 /min
Mutra	Prakrita
Mala	Vibanda
Jihwa	Saama
Shabda	Prakrita
Sparsha	Khara Sparsha
Druk	Prakrita
Akrati	Madhyama

Table 5

Investigation	Before treatment	After treatment
SGPT	67.8 U/L	26.5 U/L
SGOT	32.4U/L	16.9 U/L
TRIGLYCERIDES	324.7 mg/dl	202.60 mg/dl
ESR	33 mm/hr	11 mm/hr
FBS	122.2 mg/dl	108
HbA1c	6.9 %	6.2

Observation and Results

Disease outcome was measured based on symptomatic relief in signs and symptoms and based on PASI (Psoriasis Area Severity Index), which is a point system quantifying area and quality. It measures erythema, induration and desquamation (scaling) on a scale of 0-4.4 is the most severe. PASI score is widely used as a measure of improvement in many clinical studies. In this case study Severity of psoriasis area Index (PASI) online calculator^[5] was used where baseline PASI score was 5 (70-89%). An improvement in PASI score was observed at the beginning of treatment, at week 4 PASI the score was 2 (10-29%) and continued to improve throughout the treatment.

Discussion Vipadika is *kshudra kushta roga* and is also considered as one of the 80 kinds of *Vataja nanatmaja vikaras*^[6]. This next line of treatment was administered patient based on the involvement of *dosha*, *dushya* and *yukti* of *vaidya* which is also considered to be known as an effective practice in the treatment of *twak roga* (skin diseases). As a disease, *Vipadika* is the dominant state of *Vatakapaha* the medicine was aimed at achieving *samprampti bhanga roga* (disease). *Mukta Pishti* having purified calcium is extremely beneficial for promoting skin health. Not only does it regulate excessive sebum production and prevent blocked pores, but also balances and hydrates the skin, while protecting it from environmental damage. Being a *Kapha-pitta*

pacifier, it flushes out the AMA toxins from the internal layers of the skin, promotes overall skin health and treats various skin infections like *eczema*, acne, and also prevents oxidative damage. It is also pivotal to diminish various signs of aging and bestow a radiant glow to the skin^[7]. *Shuddha Gandhaka* (purified Sulphur) was given for external application as it helps in early tissue repair, mainly indicated in *Kapha vataja dosha* conditions, is best *Rasayana* (antioxidant), *Shoshaka* (clears secretions), *Vishaghna* & *Krimighna* (antiseptic/anthelmintic), indicated in various dermatological conditions such as *Kushtha* (skin diseases), *Kandu* (itching), *Visarpa* (erysipelas), etc^[8]. The skin of the human beings acts as a bridge between internal and external environment being well-equipped with an intricate network of antioxidant substances (redox-active) and enzymes, continually exposed to the oxidative environment^[9, 10]. The skin is composed of three layers: epidermal, dermal, and subcutaneous, out of which epidermis is adversely affected by abiotic factors^[11]. *Triphala*, formulated as powder of three myrobylan fruits, *Embolica officinalis* Gaertn, *Terminalia chebula* Retz, and *Terminalia belerica* Roxb in equal proportions exhibits plethora of health benefits^[12-13]. Several research papers validate the ethno medicinal aims that *Triphala* displays free radical-scavenging, antioxidant, anti-inflammatory, antipyretic, analgesic, antibacterial, antimutagenic, wound-healing, anticarcinogenic, antistress, adaptogenic, hypoglycaemic, anticancer, radioprotective, chemoprotective, and, chemo preventive properties^[14-15]. The skin of humans is amenable to different DNA-damaging factors of the environment and hence, needs several in-house functions to reduce, repair, and protect from such deleterious effects. Skin pigmentation, antioxidant enzymes, epidermal thickness, DNA repair and apoptosis are the mechanisms involved in offering skin protection^[16]. *Madhumehari Churna* contains *Jambu*, *Amra*, *Karvellaka*, *Mesarsngi*, *Methika*, *Bilva*, *Nimba*, *Sunthi*, *Satapushpa*, *Son Amukh*, *Bala* and *Babbula*. Most of the ingredients have *Kashaya* and *tikta rasa* property. Due to *Kashaya* and *Tikta rasa*, it helps to reduce the blood sugar level. Churna pacifies the symptoms of *Kapha* due to *Kashaya* and *Tikta Rasa* and also pacifies the symptoms of *Pitta*^[17]. *Ayurveda* classics, it has been mentioned that diseases treated with *Samshodhana Chikitsa*^[18] have the least tendency to reoccur. *Virechana Karma* is indicated not only for *Pittaja* disease but also for *Rakta* and *Kaphaj* disease^[19]. In this procedure, first *Deepana Pachana Karma* was done with *Panchkol churna* thus help in *Aam Pachana*. After this *Snehapana* was done *Go Ghrita*. *Ghrita* can penetrate the cell membrane. So, drugs incorporated with *Ghrita* (ghee) will easily assimilate in to the human body. This will help in the rejuvenation of cells and smoothening of vitiated *Dosha* (regulatory functional factors of the body). *Ghrita* is the best among *Vata-Pitta Prasaman* drugs^[20]. So, it helps in the alleviation of dryness, burning sensation and scaling of disease. After internal *Snehapana* external *Snehan* (oleation) with *til Tail* and *Swedan Vrihat dashmool Kwath* will melt the *Dosha* (removal of toxin and nitrogenous wastes) from the periphery to guts. Which is thrown out of the body with the help of *Virechak Kashaya*.

Conclusion

Based on the information provided in the case study, it can indeed be inferred that the combination of bio-purification of the body along with *Ayurveda* modalities led to better clinical management for Palmar Psoriasis in the reported case. This integration of *Ayurveda's* approach appears to have provided a unique solution that not only addressed the symptoms but also aimed at preventing the recurrence of the disease.

Furthermore, the success of this approach in the reported case could serve as valuable data for *Ayurveda* research scholars, offering insights and potential avenues for further study and development of *Ayurvedic* treatments for Palmar Psoriasis. This case report contributes to the body of knowledge in *Ayurveda* and may inspire future research and clinical applications in this field.

Table 5 Pre and post analysis

Parameter	Pre-Treatment	Post-Treatment
Skin Condition	Blackish lesions on palms and elbows	Significant improvement in lesions
	Intense itching and burning sensation	Reduction in itching and burning sensation
	Cracking and redness of the skin	Decrease in skin cracking and redness
Digestion	Issues with digestion	Improved digestion
Appetite	Poor appetite	Increased appetite
Bowel Evacuation	Irregular bowel evacuation	Regular bowel movements
Energy Levels	Low energy	Increased energy levels
Daily Activities	Limited engagement in daily activities	Actively engaging in daily activities
Diabetes Management (DM-2)	Challenges in maintaining stable blood glucose levels	Better management and control of blood glucose levels

Patient perspective

The patient was satisfied with the treatment given and the improvement in his digestion, appetite, bowel evacuation, and blackish skin lesion with itching, burning sensation in both the palms & elbows along with cracking of skin and dm-2 After two months of the treatment, the patient was feeling energetic, and actively doing his daily activities.

"Managing Madhumeh through Ayurveda: A Case Report on Patient Outcomes"



Figure 1 Before treatment



Figure 2 After treatment



Figure 7 Before treatment



Figure 8 After treatment





Figure 9 Before treatment

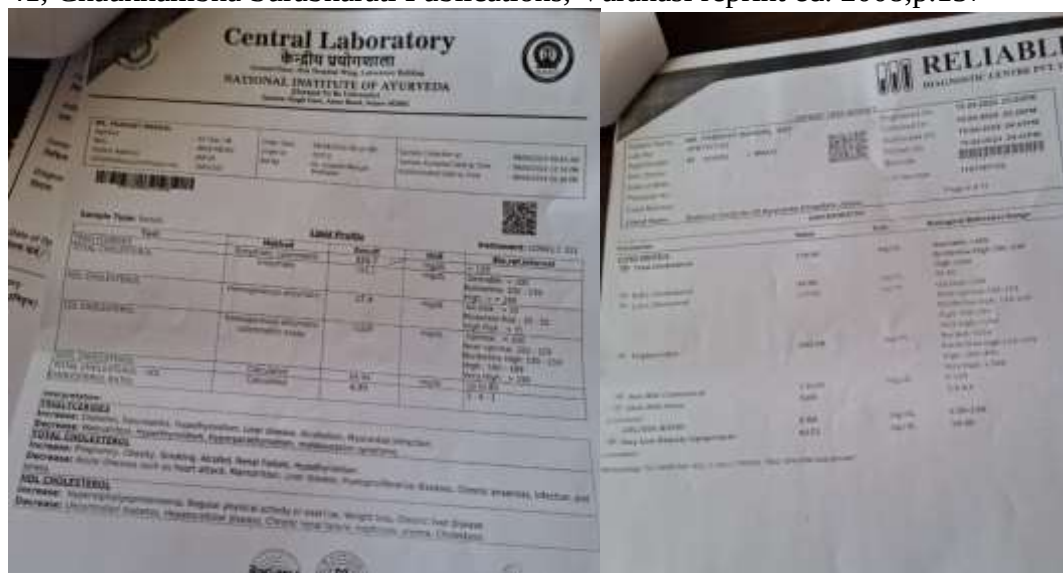


Figure 10 After treatment

References

- [1] Pandeya Gangasahaya Ed., The Charaka Samhita of Agnivesha and Ayurveda Dipika commentary of Chakrapanidatta with Vidyotini Hindi commentary by Shastri Kashinath, Part II, Reprint Ed., Varanasi, Chaukhambha Sanskrit Sansthan 2006; 206 pp.
- [2] Kunte A. M., Navare KRS Annotated, Paradakara Shastri H. S. Ed., Astanga Hridaya of Vagbhata, Reprint Ed., Varanasi, Chaukhambha Surabharati Prakashan 2002; 711 pp.
- [3] Pandeya Gangasahaya Ed., The Charaka Samhita of Agnivesha and Ayurveda Dipika commentary of Chakrapanidatta with Vidyotini Hindi commentary by Shastri Kashinath, Part II, Reprint Ed., Varanasi, Chaukhambha Sanskrit Sansthan 2006; 206 pp
- [4] Miceli A, Schmieder GJ. Palmoplantar Psoriasis. [Updated 2019 Jun 3]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-.
- [5] Matteo & Michela Corti. Psoriasis Area Severity Index (PASI) Calculator (1.7.3). Available from: <http://pasi.corti.li/.2009-2019>
- [6] Pandeya Ganga Sahaya Ed., The Charaka Samhita of Agnivesha and Ayurveda Dipika commentary of Chakrapanidatta with Vidyotini Hindi commentary by Shastri Kashinatha, Part I, 5th Ed., Varanasi, Chaukhambha Sanskrit Sansthan 1997; 269 pp.
- [7] <https://www.netmeds.com/health-library/post/mukta-pishti-benefits-uses-ingredients-dosage-and-side-effects>
- [8] Panigrahi, Debasis. (2018). Pharmaceutico Therapeutics of Sulphur (Gandhaka) An Ayurvedic Review. 7 (2):54-60.
- [9]. Slominski A, Zmijewski MA, Skobowiat C, Zbytek B, Slominski RM, Steketee JD. Sensing the environment: regulation of local and global homeostasis by the skin's neuroendocrine system. *Adv. Anat. Embryol. Cell Biol.* 2012; 212:1–115. [PMC free article] [PubMed] [Google Scholar]
- [10]. Robinson MK, Binder RL, Griffiths CE. Genomic-driven insights into changes in aging skin. *J Drugs Dermatol.* 2009; 8: s8–s11. [PubMed] [Google Scholar]
- [11]. Slominski A, Zmijewski MA, Semak I, Zbytek B, Pisarchik A, Li W, et al. Cytochromes P450 and skin cancer: role of local endocrine pathways Anti-cancer Agents *Med. Chem.* 2014; 14(1): 77–96. [PMC free article] [PubMed] [Google Scholar]
- [12] Singh DP, Govindarajan R, Rawat AK. High-performance liquid chromatography as a tool for the chemical standardisation of *Triphala*-an Ayurvedic formulation. *Phytochem Anal.* 2008; 19: 164–168. [PubMed] [Google Scholar]

- [13]. Pawar V, Lahorkar P, Ananthanarayana DB. Development of a RP-HPLC method for analysis of *Triphala churna* and its applicability to test variations in *Triphala churna* preparations. *Ind J Pharm Sci.* 2009; 71: 382–386. [PMC free article] [PubMed] [Google Scholar]
- [14]. Tierra M. The Wonders of *Triphala*: Ayurvedic Formula for Internal Purification.1996;Available:<http://www.planetherbs.com/specific-herbs/the-wonders-of-triphala.html>
- [15]. Baliga MS, Meera S, Mathai B, Rai MP, Pawar V, Palatty PL, et al. Scientific validation of the ethnomedicinal properties of the Ayurvedic drug *Triphala*: A review. *Chin J Integ Med.* 2012; 18: 946–954. [PubMed] [Google Scholar]
- [16]. Brenner M, Hearing VJ. The Protective Role of Melanin against UV Damage in Human Skin. *Photochem Photobiol.* 2008; 84: 539–549.10.1111/j.1751-1097.2007.00226.x[PMCfree article] [PubMed] [CrossRef] [Google Scholar]
- [17].Dr. Pradeep Saroj, Dr. Upasana Mishra, Dr. K. L. Meena, Dr. Mahendra Kaswan and Dr. Rameshwar Lal, “A case study to evaluate the efficacy of Madhumehari Churna in management of Madhumeha (type 2 diabetes mellitus)”, World journal of pharmacy and pharmaceutical sciences, December.2019; Volume 9:1132
- [18]AcharyaYT.Agnivesha, Charaka Samhita’ Sutra Sthana,-16:20, Chaukhambha Surabharati Publications, Varanasi, reprint ed.2008,p.30
- [19]AcharyaYT. Agnivesha, Charaka Samhita’Siddhisthana; Kalpasiddhiadha yaya:chapter1:17,Chaukhambha Surabharati Publications, Varanasi, reprint ed.2008,p. 879
- [20].AcharyaYT.Agnivesha,CharakaSamhita’Siddhisthana;Kalpasiddhiadhayaya: chapter 1:17, haukhambha Surabharati Publications, Varanasi, reprint ed.2008,p. 879.16.Acharya YT. Charak Samhita, Sutra Sthan-13: 41, Chaukhambha Surabharati Publications, Varanasi reprint ed. 2008,p.157



Central Laboratory
केन्द्रीय प्रयोगशाला
Central Place, VSA Hospital Wing, Laboratory Building
NATIONAL INSTITUTE OF AYURVEDA
(Chennai To Be Expanded)
Indira Nagar, New Delhi, India-110028

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)

RELIABLE
DIAGNOSTIC CENTRE PVT. LTD.

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)

RELIABLE
DIAGNOSTIC CENTRE PVT. LTD.

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)

Central Laboratory
केन्द्रीय प्रयोगशाला
Central Place, VSA Hospital Wing, Laboratory Building
NATIONAL INSTITUTE OF AYURVEDA
(Chennai To Be Expanded)
Indira Nagar, New Delhi, India-110028

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)

Central Laboratory
केन्द्रीय प्रयोगशाला
Central Place, VSA Hospital Wing, Laboratory Building
NATIONAL INSTITUTE OF AYURVEDA
(Chennai To Be Expanded)
Indira Nagar, New Delhi, India-110028

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)

Central Laboratory
केन्द्रीय प्रयोगशाला
Central Place, VSA Hospital Wing, Laboratory Building
NATIONAL INSTITUTE OF AYURVEDA
(Chennai To Be Expanded)
Indira Nagar, New Delhi, India-110028

MR. PRANAV NARAIN
Age: 34 Yrs 11 M Order Date: 19-04-2024 02:54 AM Sample Collection at: 19-04-2024 09:43 AM
Ref: 1904202402540001 Ref Rx: 1904202402540001 Sample Accepted Date & Time: 19-04-2024 02:54 AM
Specimen: Serum

Sample Type: Serum

Test	Method	Result	Unit	Ref. Interval
GLUCOSE	Colorimetric, Gluco	5.62	mg/dL	80 to 120
GLUCOSE DIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE INDIRECT	Glucose	5.62	mg/dL	80 to 120
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
GLUCOSE (ALT)	ALT (method F-S-P)	16.5	U/L	10 to 40
TOTAL PROTEIN	Colorimetric	7.55	g/dL	6.5 to 8.5
ALBUMIN	BCG	4.54	g/dL	3.5 to 5.5
GLOBULIN	Calculation	2.94	g/dL	2.0 to 3.5
A/G Ratio	Calculation	1.58		1.0 to 2.0
ALKALINE PHOSPHATASE	IMP AMP	11.5	U/L	40 to 120

Dr. Anil Gupta
Pathologist (MBBS, MD)