

INTERNATIONAL AYURVEDIC **MEDICAL JOURNAL**







Review Article ISSN: 2320-5091 **Impact Factor: 6.719**

A CONCEPTUAL STUDY ON PANDU ROGA

Joshi Neha¹, Pandey Punita², Tripathi Kumar Arun³, Kavya GM⁴

¹P.G. Scholar, P.G. Department of Kayachikitsa, Uttarakhand Ayurved University, Gurukul Campus, Haridwar, Uttarakhand, India

²Professor, P.G. Department of Kayachikitsa, Uttarakhand Ayurved University, Gurukul Campus, Haridwar, Uttarakhand, India

³Professor, Department of Kayachikitsa, Campus director, Uttarakhand Ayurved University, Gurukul Campus, Haridwar, Uttarakhand, India

⁴Professor, P.G. Department of Prasuti Tantra Evam Stree Roga, Uttarakhand Ayurved University, Gurukul Campus, Haridwar, Uttarakhand, India

Corresponding Author: nehajoshi41093@gmail.com

https://doi.org/10.46607/iamj2010072022

(Published Online: July 2022)

Open Access

© International Ayurvedic Medical Journal, India 2022

Article Received: 01/06/2022 - Peer Reviewed: 22/06/2022 - Accepted for Publication: 26/06/2022



Check for updates

ABSTRACT

Ayurveda, India's traditional natural system of medicine in which the clinical approach is based on preventive, promotive, and curative aspects, has given a great contribution to maintaining positive health and eradicating illness through a holistic approach, lifestyle modification (*Dincharya-Ritucharya*), diet (*Aahara*), yoga (*Pranayama-Aa*sana), medications (herbal-Rasaushdhi, etc). According to Acharya Sushrut disease occurs when the quantity and quality of any of the *Dhatu*, *Dosha*, *Agni* deteriorates in the body. Disease *Pandu* (Anemia) occurs due to vitiated Rasa and Rakta Dhatu along with vitiated Pitta Dosha. Pandu Roga can be compared with anemia on the basis of its signs and symptoms. As we know because of its higher incidence rate a detailed understanding of its etiopathogenesis is needed for the era. It will not only help in making a diagnosis but also provide a better line of treatment. After a detailed review of the literatures here I'm trying to simplify its etiopathogenesis for an easy understanding of Pandu Roga.

Keywords: Pandu Roga, Nidana (causative factors), Samprapti Chakra (etiopathogenesis), Shatkriyakala (six stages for management of any disease)

INTRODUCTION

As Acharya Charak has told there are many types of diseases, which are divided on the basis of Ruja (Pain), Varna (Colour), Samutthana (Causative factor), Sthana (body part where the disease occurs), Samsthana (Shape and size) and Naam (Name). [1] The disease Pandu has been described on the basis of Varna. There are five types of Pandu Roga-Vataj, Pittaj, Kaphaj, Sannipataj and Mrittika Bhakshanjanya Pandu Roga. [2]

Material And Methods

The material used for this study includes various Samhitas, these are Charak Samhita, Sushrut Samhita, Ashtang Hridyam, Ashtang Sangrah, Madhav Nidana and Bhavprakash, Kashyap Samhita. After reviewing details of Pandu Roga given in various Samhitas, its extract is being presented here.

Purvarupa Of Pandu

The initial signs and symptoms of *Pandu Roga* are as follows: Palpitations, roughness, loss of perspiration, and tiredness. ^[3] Cracking of skin, spitting, general weakness, *Mruttika bhakshana* (PICA), periorbital oedema, yellowing of stool and urine, indigestion. ^[4] Palpitation, roughness, anorexia, yellowing of urine, loss of digestive fire, loss of perspiration, tiredness, generalised weakness. ^[5]

RUPA OF PANDU ROGA

Tinnitus, loss of functions of digestive fire, debility, weakness, aversion to food, fatigue, dizziness, pain all over the body, fever, breathlessness, heaviness, and anorexia. The patient feels as if his limbs are being kneaded, pressed. swelling in the eye orbit, turning green, hair fall, loss of brightness, irritability, dislikes cold things, always falling asleep, spitting, speaking less, spasms in the calf muscles, patients suffer from pain in the waist, thighs, and legs. The patient feels tired while climbing the stairs. [6]

Loss of pride and slackness in *Rasadi Dhatu*, quality of *Oja* also down, *Rakta* and *Meda Dhatu Kshaya*, loss of lustre, palpitation, periorbital oedema, the patient are full of anger and generalised weakness. Spits more

talks less, hates food and cold, hair fall, appetite loss. Fever, breathlessness, noise in the ears, confusion, and fatigue. [7]

Swelling around the umbilicus, whitening of eyes, nails, and face. Suppressed digestive fire, periorbital oedema.^[8]

Types Of Pandu Roga - *Pandu Roga* is classified into 5-types in *Charak Samhita* and 4-types in *Susruta Samhita* are as follows-

- 1) Vataj Pandu Roga
- 2) Pittaj Pandu Roga
- 3) Kaphaja Pandu Roga
- 4) Sannipataj Pandu Roga
- 5) Mrttika Bhakshana Janya Pandu Roga Mrttika Bhakshana Janya Pandu Roga was included

Mrttika Bhakshana Janya Pandu Roga was includeo under Sannipataja Pandu Roga in Susruta Samhita.

1) Vataj Pandu Roga Nidana of Vataj Pandu-

Vata aggravation occurs due to consumption of diet and activities which increase *Vata* and manifests as *Vataja Pandu Roga*.^[9]

Lakshana of Vataj Pandu-

Blackness, yellowness, roughness, redness of body, general malaise, restlessness, prickling pain, tremor, pain in the lateral side of the body and headache, dryness of stool, anorexia, oedema, constipation, and loss of strength. Blackening of the eyes, dark web of blood vessels all over the body, darkening of stool, urine, nails, and oral cavity, and other symptoms of aggravation of *Vataja*. Malaise, prickling pain, tremor, darkening of stool, urine, nails, blood vessels, oedema, loss of taste, dryness of stool, pain on the lateral side of the body, and headache. [12]

Skin, urine, eyes become dry, blackish and in colour, tremor, pricking pain, gaseous abdomen, confusions. [13]

2) Pittaj Pandu Roga Nidana of Pittaj Pandu-

In pandu roga pitta is already predominant, in this condition if the patient consumes *Pitta*'s aggravating

diet and activities, it vitiates *Rakta Dhatu* and manifests *Pittaja Pandu Roga*.^[14]

Lakshan of Pittaj Pandu-

Yellow-greenish skin complexion, high temperature, burning sensation, excessive thirsty, the colour of faeces and urine become yellowish, excessive perspiration, the excessive desire of taking cold subatances, anorexia, mouth taste becomes bitter, cannt take hot and sour substances, acid eructions, burning sensation during digestion of food, foul smell from mouth, diarrhoea, generalised weakness, fainting.^[15]

Yellowing of eyes, yellowing of veins, faeces, urine, nails, and skin. [16]

Yellow-green colour of fingernails, stool, urine, eyes, fever, darkness, thirst, sweating, unconciousness, desire for cold, odour, bitterness in the mouth, foul smell, diarrhea, acid-eruptions, burning sensations. [17] Yellowing of nails, stool, urine. Burning sensations, thirst, fever, diarrhoea, skin becomes excessive pale. [18]

3) Kaphaja Pandu Roga

Nidana of Kaphaja Pandu-

Kapha aggravation occurs due to consumption of diet and activities which increase *Kapha* and manifests as *Kaphaja Pandu Rog*. [19]

Lakshan of Kaphaja Pandu-

Heaviness in body, drowsiness, nausea-vomitting, whitish skin complexion, excessive salivation, horripilation, weakness, fainting, giddiness, mental fatigue, breathlessness, cough, laziness, anorexia, loss of speech and voice, whitening of eyes, nail, faeces, urine. The patient desires to take chili, hot food items, oedema, sweetness in taste. [20]

Whitening of veins, faeces, urine, nails, and skin. [21] Whitening of extrimities and nails, sleepiness, salty taste in the mouth, excitement, loss of voice, coughing, and vomitting. [22]

The *Kapha* comes out with sputum of a person, oedema, lithargy, heaviness in the body, skin-urine-stool-nails become white.^[23]

4) Sannipataj Pandu Roga^[24]

Nidana of Sannipataja Pandu-

If a perosn consumes all kinds of food items without following any rule regarding *Aahar Vidhi Vidhan*, leads to excacerbation of all dosa and manifests *Sannipataj Pandu Roga*.

Lakshana of Sannipataja Pandu-

All the combined symptoms of Tridosa.

5) Mrttika Bhakshana Janya Pandu Roga^[25]

Nidana of Mrttika-Bhakshanajanya Pandu-

The habit of consuming mud aggravates either *Vata* or *Pitta* or *Kapha*. *Kashaya Rasa Mrttika* aggravates *Vata*, *Ushar Rasa* aggravates *Pitta* and *Madhur Rasa* aggravates *Kapha*. *Mrittika* causes dryness in *Rasa* and other *Dhatus*. Because mud dose does not digest, its leads to obstructon in channels, which results in loss of functions of senses, physical strength, facial lustre, and *Oja*, and digestive fire.

Lakshana of Mrttika Bhakshanajanya-

Facial oedema, periorbital oedema, pedal oedema, oedema around the umblicus and in genitals, worm infestation, loose stool associated with blood and mucus, sometimes worms present in the stool.

SAMPRAPTI OF PANDU ROGA

Samprapti Ghataka

Dosha- Pitta Pradhana, Tridosha Prakopa

Dushya- Rasa, Rakta, Mansa

Srotas- Rasavaha, Raktavaha

Srotodushti Prakara- Sanga

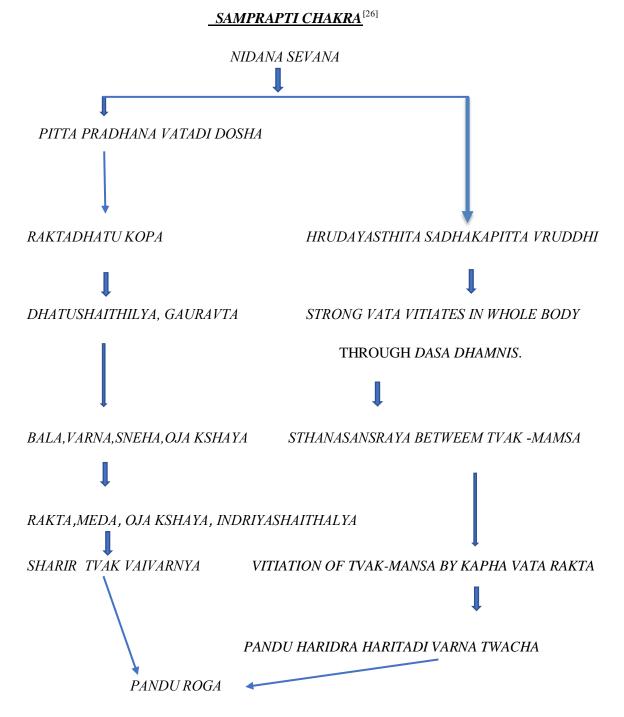
Adhishthaan- Sarvashariragata Twacha

Aashaya- Aamashayotha

Agni-Rasagni, Raktagni, Jatharagnimandya

Vyadhi Svabhava- Chirakari

Sadhyasadhyata- Krichsadhya



DISCUSSION

Nidan Of Pandu

Aharaj Nidana- According to Acharya Charak excessive intake of Kshar-Amla-Lavan Rasa (alkaline-sour-salty), Ati-Ushana (excessive hot meal), Viruddha-Asatamya Aahar (meal not taken according to Aahar Vidhi Vidhan), Nishpav (Semphali

- i.e. French beans), *Urad* (black lentils), *Pinyak*, *Til Tailam* (sesame oil) can cause *Pandu Roga*.^[27]
- According to Acharya Sushrut Ati-Amla-Lavan Rasa, Madhya-Pana (alcohol intake), Mrittika Bhakshan, Tikshna Bhojana are the Aaharaj Nidana of Pandu Roga. [28]
- Viharaj Nidana- Habit of Diwaswapna (sleeping during day time) just after a meal, Ati-Vyayama (excessive physical excercise), Ati-

Maithuna (excessive sexual indulgence), uses of *Panchkarma* therapy in *Vishama Ritu* (taking panchkarma therapy in inappropriate weather and in the improper way), *Vega Vidharana* (the habit of holding on to natural urges like defectation, urination e.t.c.) leads to *Pandu Roga*.^[29] Especially *Vaman Vega Vidharana* can cause *Pandu Roga*.^[30]

According to *Acharya Sushrut* excessive *Vyavaya*, *Diwaswapna* can cause *Pandu Roga*. [31]

- Manasik Nidana- Atyadhik Kama, Chinta, Bhaya, Krodha, Shoka can also cause Pandu Roga. [32]
- Pandu as Nidanarthaak Roga- Acharya Charaka has described Pandu Roga in

Santarpanajanya Vikaras, it does not mean that Pandu is always Santarpanotha. It can be Aptarpanajanya if it is due to Dhatukshaya (malnourishment), malabsorption. [33]

The Concept Of *Rakta Dhatu* Formation According To Ayurveda

Ahara who passes through Annavaha-Srotas gets converted into two parts-

- 1. Sara Bhaga i.e., Ahara Rasa (final product of digested food)
- 2. Kitta Bhaga i.e., Mala (waste material)

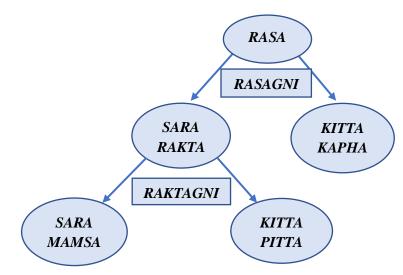


Figure 1 Rakta Dhatu formation:

Agni plays an important role in the formation of progressive *Dhatus*. There are 3 types of *Agni* in every living being,

Jatharagni- Digestion of food.

Dhatwagni- The substances which are similar to *Rasa Dhatu*, those substances of *Anna-Rasa* are processed by respective *Dhatwagni and* result in the formation of that particular *Dhatu*.

Bhutagni- For the growth of the human body, the *Panchamahabhautika* substances from *Aahara* (food) should be administered through respective *Bhutagni*. In this process, *Vijatiya Panchabhautika* substances (from the external world) are processed as *Sajatiya* within our body by *Bhutagnies*. All the five *Bhutagnies* digest their own *Mahabhutatmaka* part.

In *Charaka Samhita*, it is clearly mentioned that *Rakta* is formed by the *Ushma* of the *Pitta* which renders the *Rasa* into a colored state. [34]

According to *Acharya Sushruta Rakta* is formed in *Yakrita* (liver) and *Pleeha* (spleen) with the help of *Ranjakagni. Apa Rasa* when circulates through *Yakrita* and *Pleeha* becomes coloured there and thus *Rakta* is formed. [35]

Acharya Vagbhatta mentioned in Aashatanga Hridaya, that Rakta forming factor i.e., Ranjaka Pitta is also formed in Amasaya (stomach). [36]

Time Taken for Rakta Dhatu Formation

According to *Acharya Charaka*, the time taken for a complete transformation of *Rasa Dhatu to Shukra Dhatu* is six days and night. This process of transformation of tissue elements requiring nourishment is a

continuous 'Chakravata' process like a 'moving wheel'. [37]

According to *Aacharya Susruta Rasa Dhatu* takes 3015 *Kala* to transform *Rakta Dhatu*. Further *Rakta* will take 3015 *Kala* to transform *Mansa Dthatu* and so on. So, it takes about 18090 *Kala* i.e., about one month to form *Shukra Dhatu* from *Aahara Rasa*.^[38]

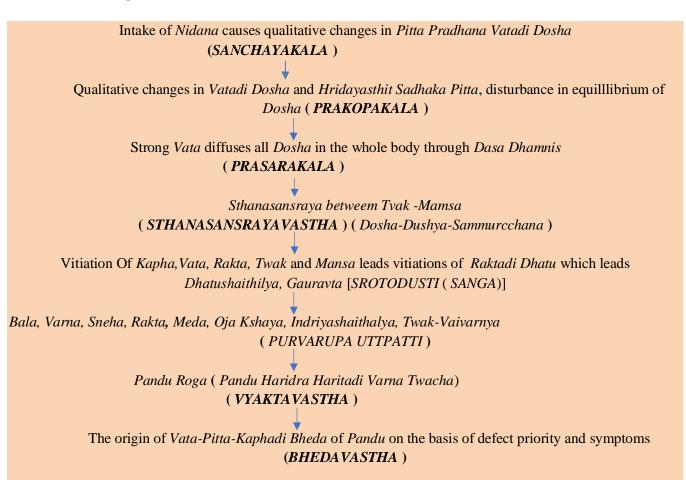
Samprapti Chakra Of Pandu Roga

Samprapti is the step-by-step progress of any disease. It deals with the process of vitiation of Doshas,

formation of *Kha- Vaigunya* (susceptable area for disease formation), *Dosha-Dushya Sammurchhana*, and finally leading to signs or symptoms of the disease.

1. According to Shatkriyakala

The knowlegde of *Shatkriyakala* of any disease helps in the understanding of its diagnosis, prognosis, complications, prevention, and management. The stepwise *Shatkriyakala* of *Pandu* can be described as;



2. On the basis of Santarpana and Aptarpana:

On the basis of various causes, Samprapti of Pandu can be divided into two;

- 1) Santarpanottha Pandu (Pandu due to overnutrition)
- 2) Aptarpannoth Pandu (Pandu due to malnutrition)



Figure 2: Samprapti Chakra- Santarpanjanya Pandu

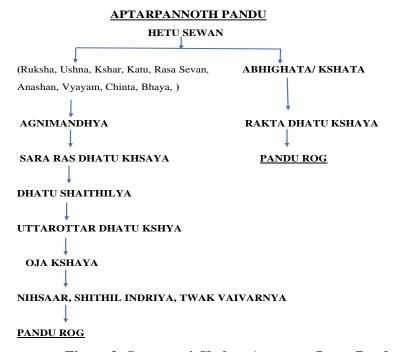


Figure 3: Samprapti Chakra-Aptarpan Janya Pandu

The above *Samprapti-chakra* shows that both *Apatarpanottha* and *Santarpanottha Pandu* finally lead *Dhatu-Kshaya* under different circumstances. Thus, we can conclude that *Dhatu-Kshaya* is a condition that cannot be ignored in *Pandu Roga*. We should take a detailed history of the patient before management of *Pandu* so that we can understand the actual cause of the disease and can plan a line of treatment.

CONCLUSION

Now a days lifestyle has changed very fast, unhealthy dietiary habits, sedentary lifestyle, competition in every field, so people show carelessness in taking care of their health and poverty is also a major cause. In Ayurvedic literature vast description of *Pandu Roga* is given. To treat a patient suffering from *Pandu Roga*, a physician must have complete knowledge of different

aspects of *Pandu Roga* like *Nidana, Roopa, Poorvaroopa, Samprapti* as per *Shatkriyakala*. Better knowledge of *Nidana Panchaka* can help to understand *Samprapti Vighatana*, which is concerned with both clinical as well as sub-clinical stages of the disease. Features of *Pandu Roga* are described by many *Acharya* and there is much similarity in their thoughts. After a detailed reviewing of the literatures here the presented review can be beneficial to the understanding etiopathogenesis of *Pandu Roga*.

REFERENCES

- 1. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2018, Part 1, Page no. 383
- Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2018, Part 1, Page no. 387
- 3. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 488
- Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 366, Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no.101
- Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391
- Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 488
- Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 362, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 390
- 8. Kasyap Samhita, Sutrasthana, 'Vidhyotini' hindi commentary by Sri Satyapala Bhisagacharya, Chaukhambha Sanskrit Sansthan, Varanasi, 2019, Page no. 52
- 9. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489

- Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 367
- Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391
- 13. Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no.101
- 14. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- 15. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 367
- 17. Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391
- 18. Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no.102
- Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- 20. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- 21. Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 368
- 22. Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391
- 23. Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no.102, Charaka, Charaka

- Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489
- 24. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 489, Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 368, Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391, Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no.102
- 25. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 490, Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 363, Vriddha Vagbhatta, Astanga Samgraha hindi commentary by Kaviraj Atridev Gupt, Krishnadas Academy, 2005 Page no. 391, Bhavprakash, 'Vidhyotini' Hindi commentary by Pandit Sri Brahma Sankara Mishra, Chaukhambha Sanskrit Samsthan, 2020, Page no. 102
- Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 487-488
- 27. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no.488
- Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 364
- 29. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 488

- 30. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2018, Part 1, Page no. 153
- Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 2, Page no. 364
- 32. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 488
- 33. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2018, Part 1, Page no.436
- 34. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 457
- 35. Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 1, Sutrasthana, Page no. 63
- 36. Vagbhatta, Astanga Hridyam 'Vidhyotini' hindi commentary by Kaviraj Atridev Gupt, Chaukhambha Prakashan, 2017 Page no. 121
- 37. Charaka, Charaka Samhita 'Vidhyotini' hindi commentary by Kashinath Shashtri and Gorakhnath Chaturvedi, Chaukhambha Bharti Academy, 2013, Part 2, Page no. 457
- 38. Sushruta, Sushrut Samhita Ayurveda Tattva Sandipika hindi commentary by Kaviraj Ambika Dutta Shastri, Chaukhambha Sanskrit Samsthan, 2016 Part 1, Sutrasthana, Page no. 66

Source of Support: Nil Conflict of Interest: None Declared

How to cite this URL: Joshi Neha et al: A Conceptual Study on Pandu Roga. International Ayurvedic Medical Journal {online} 2022 {cited July 2022} Available from: http://www.iamj.in/posts/images/upload/1750_1758.pdf