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Ayurveda

ENLIGHT ON PANDU (ANAEMIA)-A SHORT REVIEW

KEY WORDS: Ahara, Ama, Anaemia Pandu Roga, Vihar

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ABSTRACT

Pandu Roga is described by all Acharyas of Ayurveda this disease with its own pathogenesis and treatment according to the modern science it can be co-related with Anemia . According to W.H.O globally, anaemia affects 1.62 billion people (95% CI: 1.50–1.74 billion), which corresponds to 24.8% of the population (95% CI: 22.9–26.7%). The highest prevalence is in preschool-age children (47.4%, 95% CI: 45.7–49.1),. It is therefore important to search scientific reason behind the disease. The Anemia is a reduced quantity of red blood cells or hemoglobin which, in turn causes pale skin. This article is based Pandu Roga and its treatment According to Ayurveda. . The changing lifestyle of human being plays a major role in manifestation of various diseases. Pandu Roga is also one of them. Our faulty dietary habits and lifestyle produces Ama and further Agni Dushti, which causes improper Rasa Dhatu formation which further hampers the Rakta Dhatu formation and leads to Pandu Roga.

INTRODUCTION

Pandu is one of the diseases found in our daily OPD and IPD sections. From observation it is found that nutritional deficiency is the major etiological factor of this disease. Our wrong habits cause *Aam Utpatti*, which further cause *Agnimandya* and ultimately produces *Aamyukta Aahar Rasa*. This *Aamyukta Aahar Rasa* hamper *Rasa dhatu Utpatti* and it becomes the basic factor in the manifestation of *Pandu* disease. When *Rasa Dhatu Utpatti karma* is hampered the other dhatus are not properly maintained along with their corresponding *Updhatus* on the principle of *Kshirdadhi, Khalekapot* and *Kedarkulya Nyaya*.

Panduroga is described in *Ayurvedic* texts, with its etiopathogenesis and treatment. As per *Ayurveda Pandu Roga* is *Rasapradoshaj Vikar* and *Rakta Dhatu Kshay* is the common symptom and *Panduta, Daurbalya, Hridspanan, Akshikuta Shoth* are considered to be cardinal features of *Pandu Roga*. All this indicates the necessity of research work on *Rasavaha Strotus Dushti Vichar* in the management of *Pandu* disease. As per this concept in the pathogenesis of *Pandu, Sadhak Pitta* is main responsible factor.

Prevalence of anemia in India is high because of low dietary intake, poor availability of iron and chronic blood loss due to hookworm infestation and malaria. Majority of people in our country belongs to middle and lower economical class with unhygienic food habits, nutritionally deficient diet and illiteracy. Some of the people have no time for themselves, thus compromising with their diet and prefer to consume fast food and fried foods leading to nutritional deficiency. This nutritional deficiency leads to anemia.

In *Ayurveda, Pandu* can be symptomatically correlated with Anemia. A detail explanation of *Pandu roga* is found in almost all *Ayurveda Samhitas*. These altered conditions in fact manifest themselves through the agency of *Doshas, Dhatus* and *Malas* in the body.

In *Ayurveda Pandu* is mentioned in *Raktavaha Strotas¹* and *Rasavaha Strotas²*. *Rakta* has been considered as a key factor for *Jeevana, Prinana, Dharana, and Poshana* of body³. The pathogenesis of how these factors leads to *Pandu* has been explained in *Ayurveda* in the form of *Samprapti* in which vitiation of *tridosha* is the root cause⁴

NIDANA

"*Pandu*" is word derived from the Dhatu "*Padi Gatou*" means

Gati (transformation). The word "*Padi Gatou*" signifies the formation of *Rasa, Rakta*, and other *Dhatus*. Any disturbance, in the Dhatu Nirman process results into *Pandu Roga*.

From Chikitsa point of view, *Nidana* has prime importance, as *nidana Parivarjana* has a significant role in treatment part. The *Nidana* of *Pandu Roga* is divided into following types: *Aharaja Nidana, Viharaja Nidana, Mansika Nidana, Chikitsa apacharaja Nidana, Nidanarthakara Roga*

AHARAJA NIDANA:- Charaka has mentioned that *Apatarpana* and *Santarpana* both can be the cause for *Pandu*.

According to Charaka:

a) Ati Kshara, Amla, Lavana, Kashaya Rasa Sevana⁵:
Ati sevana of *kshara* and *Amla* rasa may cause irritation to gastric mucosa, which may lead to hemolysis, and disturbed metabolism of various tissues. Long term use of *Amla Rasa* can cause *Mamsa Vidaha*, which can cause *Dhatu Shithilata*. Likewise, *Lavana Rasa* does the same, it vitiates the *Rakta*. According to Acharya *Sushruta*, excessive consumption of *Amla* and *Lavana Rasa* produces *Dhatushithilata* and *vaivarnata*.

b) Viruddha – ahara and Asatmya Bhojana:
Frequent use of *Viruddha Ahara* and *Asatmya Bhojana* leads to *Sneha Guna Kshaya* of *Dhatu*, which produces *Ama* and disturbs the metabolism.

c) Nishpav, Masha, Pinyaka, Tila Taila Sevana:
Excessive intake of above *nidana* causes *Vata, Pitta Prakopa* causing *Agnimandya* which leads to *Rasavaha* and *Raktavaha Srotodushti* ultimately leading to *Pandu*.

VIHARAJ NIDANA:

a. Diwaswapa:
To sleep during daytime or immediately after food leads to *Kapha Sanchaya*, which hampers the *Dhatu Poshana Kriya* by *Srotorodha* and in turn causes *Pandu Roga*.

b. Ati-vyayama:
Dhatukshaya is seen due to *Ati-vyayama*. Improper diet and dietary habits may accompany to it, which ultimately results in *Oja-Kshaya* as mentioned in *Charaka (Ch. Chi. 16/5)*

c. Ati-Maithuna:
Excessive sexual activity causes *Shwasa, Shula* and *Karshyata* that finally results into *Pandu Roga*.

d. Vegadharana:

Due to Dharana of Adharaneeya Vega, especially Chardi Vega, it leads to Srotovarodha finally resulting into Pandu

MANASIKA NIDANA

Majority of the population has low or middle socio- economic status. As a result, common Mansika Hetus like Chinta, Shoka, Krodha, Bhaya described by Acharya Charak, become their part of life which badly affects our digestive system.

CHIKITSA APACHARAJA NIDANA:

Sneha Vibhram, Sneha Atiyoga, Amaj Atisara Sangraha, Dushta Rakta Nigrah in Raktarsha and Vega Vidharan in Vamana Karma can be the Chikitsa Apacharaja Nidana.

NIDANAARTHAKARA ROGA:

There are some diseases, which are having co-relation with Pandu roga as a symptom or as an Upadrava. All these factors can be the cause of Pandu. These Hetu directly affects the Rakta Dhatu, as a result Kshaya of Rakta Dhatu occurs and Pandu is produced.

PURVAROOPA[®]

Doshas, which have crossed the Prakopavastha and attained Sthana Samsrayavasta, which show certain symptoms related to future disease are known as Purvaroopa.

During Prasara Avastha, due to continuation in Nidana Sevana, Sanchita Dosha become more prakupita and aggravated, and then spread all over. These Prakupita Doshas stops, where there is KhaVaigunya, and interact with Dushya in vitiated Srotas and then make the Dushya also vitiated. As a result, prakupita Dosha- Dushya samurchhana occurs. The symptoms present at that time are called as Purvaroopa.

According to Acharya Charaka⁷-*Hrudspandan, Rukshata, Swedabhava, Shrama*

According to Acharya Sushruta--*Twaka sputana, Sthivana, Gatra-saada, Mruttika, Bhakshana-Iccha, Avipaka, Vit pitata, Mutra pitata*

According to Acharya Vagbhata--*Hrudaya spandan, Aruchi, Alpa vanhita, Saada*

Hrud-Spandan

Rasa Dhatu Kshaya and Vata Vruddhi in Pandu Roga, develops Hrud-Spandan.

Twak Rukshata or Twak Sphutana

Rasa, Rakta, Meda and Oja Kshaya results in development of Twak Rukshata.

Sweda Abhava

Meda Kshaya is seen in Pandu Roga and so respective, Mala is also reduced and accumulation of Dosha (Dosha Sanchiti) occurs in between Twacha and Mansa Dhatu causing Srotorodha leading to Sweda Abhava.

Shrama

There is Rasa – Raktadi Dhatu Kshaya in Pandu roga which leads to Uttarottar Dhatu Kshaya and creates Dhatu Shaithilya, hence Shrama is observed.

Sthivana

There is rasa Dhatwagnimandya in Pandu roga, which is responsible for Kapha Vruddhi and hence Sthivana is observed Mruttika- bhakshan iccha.

It is due to the Prabhava of the disease and it is specially observed in Mrud- bhakshanjanya Pandu.

Aruchi, Avipaka, Alpa vanhita

Agnimandya produced in Pandu roga due to Vikruta

Rasadhatu Nirmiti, causes Avipaka and produces Aruchi. Akshikoota shotha- It is a sign of Kapha Vriddhi.

ROOPA

Vyakta Purvaroopa is Roopa. In this stage, the signs and symptoms of the Vyadhi are completely manifested. Roopa of vyadhi plays an important role for the diagnosis of the disease.

Sadhya-Asadhyatva of the vyadhi depends upon the presenting symptoms. Roopa appears in the Vyaktavastha i.e. fifth Kriyakala of the disease.

Roopa are classified into three categories-1) Pratyatma Lakshana 2) Samanya Lakshana 3) Vishista Lakshana Pratyatma Lakshana:-Panduta or Pandubhava is a Pratyatma Lakshana of Pandu Roga.

Samanya Lakshana:

The Samanya Lakshanas are– Panduta, Dourbalya, Karnakshweda, Gatrapeda, Alparaktata, kshinalomata, Shunakshikuta shotha, Sthivana, Hrudrava, Bhrama, Gaurava, Kasa, Aruchi, Shwasa, Harita varna, Hataprabhatwa, Alpavak, Oja guna kshaya, Pindikodweshtan. Vishista Lakshan: According to classification of Pandu

Vataja Pandu[®] Aruna / Krishna Panduta (Twak, Netra, Nakha, Mutra, Purisha), Rukshta, Angamarda, Kampa, Toda, Shoola (Parshwashoola, Shirashula) , Grathita mala/Shushka mala ,Asyavairasya, Balakshya, Anaha, Shotha, Bhrama

Pittaja Pandu-Pitata (Twak, Nakha, Netra, Mutra, Purisha), Haritabhata, Jwara, Trushna, Chhardi, Murccha, Sheeta Kamita, Ushna Anupashayata, Vidah

Kaphaja Pandu-Gauravta, Chardi, Praseka, Lomaharsha, Sada, Murcha, Bhrama, Klama Shwasa ,Kasa ,Aruchi ,Alasya, Akshivarcha

Tridoshaja Pandu-Due to Vata, Pitta, Kapha promoting Ahara-Vihara, all the three doshas simultaneously get vitiated and causes Tridoshaja Pandu

Mrud Bhakshanjanya Pandu-The main causative factor in Mrud Bhakshanjanya Pandu is *Mruttika (soil) sevana. Mruttika having Madhura Rasa - Kapha Dosha Prakopa Mruttika having Lavana Rasa - Pitta Dosha Prakopa Mruttika having Kasaya Rasa - Vata Dosha Prakopa ,Agnimandya ,Shotha ,Raukshyata ,Dhatu durbalata, Kshaya (Teja, Bala, Oja, Virya) ,Krimi.*

SAMPRAPTI

“Samprapti Vighatanam Chikitsa” i.e. to break Samprapti (Sampraptibhanga) is Chikitsa. From Chikitsa point of view, more importance has been given to the knowledge of Samprapti. (Charaka)

Types of Samprapti:

Samprapti is divided under two headings -1) Samanya Samprapti 2) Vishishta Samprapti

Samanya Samprapti:

According to Acharya Charaka[®] – Due to the Nidana sevana (Mithya Ahara, Vihara and Mansika bhavas), there is Pitta Pradhan Tridosha Prakopa, which leads to an increase in Snigdhatva and Dusthi of Pitta in the form of Dravyatah Vruddhi, Gunatah and Karmatah Kshaya. This Prakupita Dosha displaces the Sadhaka Pitta from Hridaya with the help of Vayu and throws it all over the body with the help of Dasha Dhamanis, and gets sthana samsraya between Twak and Mamsa resulting in discolouration of the skin and results in Panduta, e.g. in Kaphaja Pandu –Panduta in Pittaja Pandu - Haridra, Harit Vaivarna in Vataja Pandu -Karshnyata of Twacha which results in Pandu Roga.

Because of this Prakupita Doshas, Dhatu Shaithilya occurs and then prakupita dosha remains in this Shithila Dhatu which results in Varna, Bala, Sneha and Oja Kshaya. Due to this, there is Kshaya of Prakruta Guna, Karma of Dhatu. As there is Varna, Bala Kshaya, Nissarata and Daurbalyata is observed. Alparaktata, Alpamedaskata, Nissarata and Shithilendriyata lead the Samprapti in Gambhiravasta.

According to Acharya Vagbhata –

Prakupit Vatadi Doshas (Pitta being predominant) which is directed by Balavana Vata into Hrudaya and situated in Hrudaya, is later forcefully dragged out by Vata into Dasha-Dhamanis, spreading it to all over the body.

While circulating in the body Kapha, Twaka, Rakta, Mamsa also gets prakupita and localized in between Twaka and Mamsa, producing various colour of the skin as per the Dosha prakopa, such as- Panduta, Haridra and Harita. Out of these, Pandu varnata is particularly predominant and hence the disease is called as Pandu.

Vishishta Samprapti

Vataja Pandu Samprapti –

Though Pandu is Pitta Pradhana Vyadhi, Vata Dosha also plays an important role in the disease manifestation process. Vatakar AaharVihar causes Vata and Pitta Prakopa which leads to Rasa-Raktadi Dhatu Dushti and causes Vataj Pandu. Mainly Vyan Vayu has important role in Samprapti of Pandu Roga. Vitiated Vata is responsible for Kampa, Gatrashoola, Angasada, Twaka Parushya, Rukshata, Kati-uru pada ruka etc (Ch.chi 16)¹⁰

Pittaj Pandu Samprapti –

In Pitta Prakruti people, if Pittakara Hetu in the form of AharaVihar is done, it leads to the Pitta Dushti and is one of the main factor causing Pittaja Pandu. Pitta Dosha is responsible for the normal color of the skin but when it gets Prakupita, it also does the Prakopa of Rakta Dosha and develops dull complexion i.e. Panduta occurs.

Kaphaja Pandu Samprapti –

In Kaphaja Pandu, both Kapha and Pitta predominance is seen but Kapha plays a crucial role in the development of Panduta. It has been stated that Santarpanotha Hetu, which increases the Kapha and responsible for the Jatharagni Mandya results in Ama utpatti (Ch.Su.23/3)¹¹ which further leads to formation of abnormal Rasa ultimately producing abnormal and deficient Rakta and leads to uttarottar kshaya of dhatus. Prakupita Kapha dosha is responsible for Gauravta, Alasya, Nidradhikya, Aruchi, Shwasa, Panduta etc.

Tridoshaj Pandu Samprapti –

Due to the Tridoshaj Prakopaka Ahara- Vihara, all the three Doshas Vata, Pitta, Kapha, get simultaneously vitiated and produce Tridoshaja i.e. Sannipataja Pandu. There is remarkable kshaya of Bala, Varna, Snehaguna and Alparaktata. Such type of Pandu leads to Asadhyatva.

Mrud bhakshanjanya Pandu Samprapti

Habitual act of eating Mruttika aggravates one of the Tridosha as per the Rasa of Mruttika (Kashaya rasa- Vata, Lavana rasa- Pitta, Madhura rasa- Kapha) due to the Ruksha Guna of Mruttika, it causes Rukshata of Rasa Dhatu. As it cannot be digested, the undigested Mruttika produces Srotorodha and hampers the Dhatu Nirman Prakriya as a result there is Rasa-Raktadi-Oja Kshaya and person becomes Nissar, i.e. Twaka Vaivarnata occurs.

1.	Dosha	Pitta pradhana Tridosha
2.	Dushya	Rasa, Rakta, Meda
3.	Agni Dushti	Mandagni
4.	Ama	Amaja Vyadhi
5.	Srotasa	Rasavaha, Raktavaha, Medovaha, Srotasa

6.	Udbhava Sthana	Amashaya
7.	Vyakta Sthana	Sarva Sharira
8.	Sanchara Sthana	Dashadhamanis, Sarva Sharira
9.	Ashraya Sthana	Twaka, Mamsa
10.	Vyadhi Marga	Madhyam

PANDUROGA CHIKITSA (Treatment)-

Basic Principles:

Acharya Charaka has mentioned three general Principles about, how to treat a disease, in Charaka Sutrasthana (11/54).- Daiva Vyapashraya – In Daivya Vyapashraya Chikitsa, Acharya Harit has advised donation of Cow or Gold, Manidharana, Yagdhnya etc., Yukti Vyapashraya – Hitakara Ahara-Vihara and Aushadhi Prayojana., Satvawajaya – It keeps the mind away from harmful objects.

Acharya Sushruta also mentioned three general Principles about, the Treatment part in Uttar sthana (1/24) –Nidana Parivarjana – It involves avoidance of those factors, which are responsible in disease progression. Shodhana – Elimination of causative factors out of the body through various routes. Shamana – Palliative treatment.

CHIKITSA:

Pandu vyadhi is mainly concerned with Yuktivyapashraya Chikitsa, which includes –1) Nidana Parivarjana 2) Snehana Chikitsa 3) Shodhana Chikitsa 4) Shamana Chikitsa

According to Acharya Charaka 12 –

According to Acharya Charaka, in Sadhya rugna of Pandu, Vamana can be given with the help of Snigdha, Tikshana aushadhi. Virechana can be given with Tiksna aushadhi but it should be Mrudu. After the Samyaka shuddhi Pandu & Kamla rogi are strictly on Pathya. Shali (Rice), Yava (barley), Godhuma (wheat) Yusha of Mudga, Adhaki and Masura and Rasa of Jangala mama. As per the dosha prakopa we can Shmana aushadhi, and for Apunarbhavartha and as a Shamanartha we give Snehana, like Panchgavya Ghruta, Maha Tiktaka Ghruta & Kalyanaka Ghruta.

Ekeri Dravya Chikitsa-

Herbal Drugs- Haritaki, Haritaki, Haridra, Draksha, Yashtimadhu, Shunthi, Pippali Mineral Compounds- Loha Bhasma, Mandura Bhasma, Abhraka Bhasma, Swarna makshika, Kaseesa Bhasma, Tamra Bhasma.

Herbo-Mineral Compounds-Navayas Churna, Haritakyadi Churna, Guda Haritaki Churna, Mandura Vataka Vati-Yograjya, Shivagutika,, Dhatri-loha, Punarnava Mandura, Mandura Vataka Kwatha-Punarnavadi Kwatha, Phaltrikadi Kwatha, Darvyadi Kwatha Asava- Arishtha- Gudaristha, Dhatriyarishtha, Bijakaristha Leha-Darvyadi avaleha Dhatriyadi avaleha.

Discussion

Causative factors of Pandu are widely described in Samhitas. According to Acharya Sushruta Rakta gets vitiated by Diwasvapa, ViruddhaBhojana and Krodha. Acharya has also mentioned that Krodha, Shoka, Bhaya, Vidagdha Anna Sevana, Ati Maithuna and Tila Tailand Pinyaka leads to vitiation of Pitta Dosha. Ativyayama, Ratrijagarana, Nidranasha, Ativyavaya and AtiAdhvagamana leads to VataPrakopa. Acharya Charaka has mentioned Pandu Rogal6 caused by suppression of Chhardi, Vegavarodha, Viruddha Anna Sevana and of excessive use of Ati Amla and Lavana Rasa. Acharya Charaka 17 has emphasised bad effect of Chinta, Bhaya, etc. on digestion. All these causes improper digestion of food which leads to improper Rasa Dhatu formation and further hamper

Rakta Dhatu, Mamsa Dhatu formation and so on and thus leads to Pandu Roga. involving vitiation of Agni and Ama production, which in next step obstructs the Dhatuvaha Srotas which leads to disturbance in Dhatuposhan Krama and ultimately produces Pandu. Thus, the pathology of Panduroga is mainly concerned with vitiation of Pitta which in turn vitiates the Rakta, leading to condition of Pandubhava.

CONCLUSION

Nidan Panchak is a great tool for diagnosing a disease at various stages, in which disease a manifest itself and every stage has its own importance in the treatment and its effective prognosis. Majority of nidans is pitta and Rakta prakopaka. These nidans cause Mandagni and Rasavaha Sroto Dushti which further causes less production of Poshaka form the rasa dhatu and depletion of rakta and ultimately Rakta Alpata. So the treatment given is basically does Samprapti vighatan, all these Ayurvedic formulations is that they are safe and effective and in various forms like churna, kwatha, Vati, Asava- Arishtha, Leha Herbo-Mineral Compounds, Mineral Compounds, Ekeri Dravya.

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