STUDY OF “PANDU” – AN AYURVEDIC LITERATURE REVIEW

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ABSTRACT
Pandu is a disease described in all classical text of Ayurveda. It is our purpose to understand the seriousness of disease and have complied all literature of Pandu and reviewed it. It is patients of Pandu disease with its own pathogenesis and treatment most resembles it can be correlated with anaemia. Pandu considered as Rasa Pradoshaj. Acharya Sushrut stated it as Rakta Pradoshaj. The formation of Rasadi dhatus depend on proper food intake. Nutritional deficiency is one of the major etiological factors of this disease. They cannot take fresh, green leafy vegetables, cereals, milk, fruits etc. malnutrition, stress-strain, workloads, changed Diet and life style are the triggering factors for Pandu, Pandu and etiological factors have been described very basically etiopathogenesis.

KEYWORD: Pandu, Rasavaha, Anaemia.

INTRODUCTION
Pandu has been named on the basis of its presentation i.e., Pandu Colour of skin, nails, eye’s. According to Ayurvedic text the skin colour in Pandu is described as like ketaki Raja’ i.e., white and yellowish also it is mentioned as ‘Bheka varna’ means as like skin of Frog i.e., Nisteya and rough and no uncut skin.[1] The most common sign is Panduta due to which disease is named as Pandu Roga.

In Classical text of Sushrut Samhita and Vagbhhat Samhita few additional information regarding Pandu is found which is distinct from narration in text of charaka. In Sushruta stated that, Kama, panko, lagharak Alisa are the synonyms of Pandu.

Pandu is known from the Vedic period. Acharaya Charaka described Pandu after Grahani Dosha Chikitsa due to aggravation of Pitta in Grahani Dosha Chikitsa due to aggravation of Pitta in Grahani and the aggravation of Pitta a predominant factor in the causation of Pandu.[2]

Acharaya Sushruta has mentioned after Hridroga due to same pathogenesis and treatment of Hridroga like Tikshna, sour (Amla), pungent Taste (katu) etc many causes for development of Pandu. Acharaya Vagbhhat mentioned Pandu Vyadhii after udarroga due to same Doshanghnata. All Acharayas explain the word ‘’Pandu’’ as White (Shweta), dhusara, Whitish (shwetavabhasa), Yellowish (pitavabhasa). Pandu suffers from decreased blood count, Balā, (Strength), colour (Varna), Sneha, meda, and Oja.[3]

Pandu is a disease characterized by Gen. Weakness, pallor, loss of appetite, dyspnoea, hair loss which strikingly resembles with the anaemia of modern science.[4] Many Patients can’t take the nutritious and balanced diet due to lack of understanding the disease knowledge. Women are busy in their household work, taking care of their families, don’t consumed balance diet and in turn ignore their own health.

METHODS AND MATERIALS
Texts of Charaka Samhita, Sushruta Samhita, Vagbhhat Samhita, madhavkara, sharangdhara, and bhavanishra. And other classical texts were referred.

Concept Review of Literature
Basic Nomenclature of “Pandutwa”
The word Pandu has been described as per Sanskrit language, panduta means, White (Shweta), Slight Yellowish (ishat Pandu) Varna (Colour having whitish tinge).

The colour in Pandu is mentioned as similar as ketaki dhal, Shankha, pakwa madanpal and apakwa parashhaka phal.[2]

According to Amarkosha
Pandu means Change in skin colour of body having yellowish and whitish tinge.\[5]\n
According to Shabdakshpadrum
Various synonyms of Pandu are given in Shabdakshpadrum. Viz. Hrinaha, pandharaha, pandhuraha,

According to Vachaspatyam
Pandu resembles like dhula of ketaki flowers as like having whitish and yellowish tinge.

Definition- (Paribhasa)
Pandu Vyadhi is a disease in which change in colour of Nail (nakha), Eyes (netra), Skin (twacha), and Urine (mutra) is the main symptoms.

According to Charaka
The skin of Pandu Vyadhi becomes Pandu or greenish.

According to Sushruta
The disease having dominance Pandu bhava is named as Pandu Vyadhi.

According to Madhavkara
Pandu Vyadhi is characterized by the lakshna Panduta.

According to vaghbhat
The disease is known as Pandu in which various types of Colours of skin Viz. Pandu, haridra, and Harita are found among which Pandu is more common.

Causes of Pandu as classical text (Nidanapanchak)
Nidana of Pandu Can be classified in 3 Categories

1. Dietary Causes
Excess intake of alkaline salt, sour, spicy food. incompatible food excess intake of alcohol, habit of eating of soil.

2. Life style Causes
Day sleep, exercise and sexual intercourse during digestion if foods.

3. miscellaneous
Anxiety, Grief, Fear, Anger

Etiological Factors \[6\] & \[7\]

<table>
<thead>
<tr>
<th>Etiological</th>
<th>Charak</th>
<th>Sushruta</th>
<th>Vaghbhat</th>
<th>Madhav</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dietary Causes</td>
<td>Excess intake of sour, salt, spicy food.</td>
<td>Excess intake of sour, salt, spicy food.</td>
<td>Excess intake of sour, salt, hot and spicy food incompatible.</td>
<td>Excess intake of sour, salt, spicy food.</td>
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<tr>
<td></td>
<td>incompatible food</td>
<td>excess intake of alcohol, habit of eating of soil.</td>
<td></td>
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<tr>
<td>2. Life style Causes</td>
<td>Day sleep, exercise and sexual intercourse during digestion if foods.</td>
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<td></td>
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<tr>
<td>3. miscellaneous</td>
<td>Anxiety, Grief, Fear, Anger</td>
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Secondary Pandu (Nidanaarthak Pandu)
In Classical Ayurvedic samhita Pandu has been described either as a symptom of any disease or as a complication of disease. So all these diseases can be considered as Nidanaarthak Rogas of Pandu Roga. Some of which are hemorrhoids, Kaphaja Arsha, Raktarbuda, Ratakpraddara, sannipatodara, updrava of Raktapitta, bleeding Disororders.

Premonitory Symptoms (PURVAROOPA)
According to Acharya charaka वस्त्रपतः शैलश्च शोधात्मानाञ्च भ्रमणाञ्च || १२||

Acharya Charak
Palpitation, Dryness, lack of sweating, Fatigue.

Acharya Sushruta
Dryness of skin, bodyache, swelling around eye, Indigestion, Excess salivation, Habit of Soil intake.

Acharya Vaghbhat
Palpitation, dryness of Skin, Anorexia, Lack of Sweating, Tiredness.

Acharya Madhav
Dryness of skin, bodyache, swelling around eye, Indigestion, Excess salivation, Habit of Soil intake.

Sign and Symptoms (ROOPA)

| वस्त्रपत: शैलश्च शोधात्मानाञ्च भ्रमणाञ्च || १२||
| उपरायुक्ते द्रािेत्वम् द्रािेत्वम् सिीणधिोमा हस्तप्रभ: || १३||
| शून्यािक्षिू टो हररत: शीणधिऊमा हस्तप्रभ: || १४||
| इंधनािोव्देष्टिट् यूरुिाद उरु तथेष्टिट् यूरुिाद उरु || १५||

According to Acharya Madhav

| Palpitation, dryness of skin, bodyache, swelling around eye, Indigestion, Excess salivation, Habit of Soil intake. |
### Pathogenesis - According to Ayurvedic text probable diagnosis of pathogenesis of Pandu.

<table>
<thead>
<tr>
<th>Acharya Charak</th>
<th>Acharya Sushruta</th>
<th>Acharya Vagbhat</th>
<th>Acharya Madhava</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Etiological Factors</strong></td>
<td><strong>Vitiation of Pitta</strong></td>
<td><strong>Vitiation Of Pitta &amp; Vata</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Vitiation of Doshas</strong></td>
<td><strong>Raktavaha Srotodushti</strong></td>
<td><strong>Through arteries of heart it reaches all over the body.</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Poor Digestion (Mandagni)</strong></td>
<td><strong>Dhatu Shaithilya</strong></td>
<td><strong>Kapha, Rakta, Skin, Mansa Dushti.</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Rasavaha Srotas Dishti</strong></td>
<td><strong>Skin, Mansa Vitiation</strong></td>
<td><strong>Skin Discoloration</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Blood &amp; Fat Loss (Rakta and Meda Dhatu Kashaya)</strong></td>
<td><strong>Indriya Shaithilya</strong></td>
<td><strong>Pandu Varnata</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Pandu</strong></td>
<td><strong>Pandu</strong></td>
<td><strong>Pandu</strong></td>
<td>-</td>
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</tbody>
</table>

#### Common Pathogenesis (Primary Pathogenesis)

According to Ayurvedic Text probable diagnosis of pathogenesis of Pandu.

- **Etiological Factors**
  - Vitiation of Sadhak Pitta
  - Through Arteries of heart it reaches all over the body.
  - Raktavaha, Rasa Srotodushti
  - Dhatu Shaithilya
  - Discoloration Of Skin
  - Rakta, Medokshaya
  - Pandu.
Specific Pathogenesis / Secondary Pathogenesis

<table>
<thead>
<tr>
<th>Mrudabhakshan Pandu</th>
<th>Krimijanya Pandu</th>
<th>Nidanarthaka diseases such as Raktapradar, Raktarashtra</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habit of Soil intake</td>
<td>Poor personal hygiene/ Other Factors</td>
<td>Loss of Blood</td>
</tr>
<tr>
<td>Vata, Pitta, Kapha Vitiation</td>
<td>Jatharagni Poor Digestion</td>
<td>Loss of strength, Oja, Vegar Pandu</td>
</tr>
<tr>
<td>Indigested food all over the body</td>
<td>Production of Toxic Substance (Aama)</td>
<td>Excess Kapha, And purisha as a specific nidan of Pandu</td>
</tr>
<tr>
<td>Srotas Obstruction</td>
<td>Produces suitable environment for growth of Krimi (Worms)</td>
<td>Production of Undigested material (Apakavamala)</td>
</tr>
<tr>
<td>Loss of Strength</td>
<td>Excess Kapha, And purisha as a specific nidan of Pandu</td>
<td>Srotorodha</td>
</tr>
<tr>
<td>Pandu</td>
<td>Production of Undigested material (Apakavamala)</td>
<td>Bala, Varna Loss Pandu</td>
</tr>
</tbody>
</table>

Complications as discribed Ayurvedic Text/ literature

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Excess Thirst</td>
<td>Anorexia,</td>
<td>Shotha -</td>
<td></td>
</tr>
<tr>
<td>Fever,</td>
<td>Excess Thirst</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodyache</td>
<td>Vomiting</td>
<td></td>
<td></td>
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<tr>
<td>Oedema,</td>
<td>Headache,</td>
<td></td>
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<tr>
<td>Tinnitus,</td>
<td>Oedema, Tiredness,</td>
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<tr>
<td>Jaundice</td>
<td>Chest Pain,</td>
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<td></td>
<td>Fainting</td>
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Most of following sign and symptoms of complication indicates non curable
1. When the disease become chronic (Chirotpanna).
2. Kharibhuta (Excessive Dryness).
3. Kalaprarakshat shuno (œdema owing to chronicness).
4. Pitani pashyati (Yellow Vision) excess pale yellow colour bac
5. Buddha Alpa vitaka (fully or partially constipated).
6. Chardi (Vomiting), murcha (Syncope), Trushardita.
7. Asrika Kashayad shwetavam.

DISCUSSIONS
They cannot take fresh, green leafy vegetables, cereals, milk, fruits etc. malnutrition, stress- strain, workloads, changed life style are the triggering factors for Pandra Vyadhi. The pathology of panduroga is mainly concerned with vitiation of pitta which in turns vitiates the Rakta, leading to condition of Pandubbhava. Thus, pitta being the Pradhana dosha or main factors in the causation of panduroga of panduroga, but as the main seat of the disorganization is the Rakta (Rakta Dhatu is affected by vitiated pitta dosha) and that causes rakta dhatu kshaya the Ranjana function of pitta is to bear the brunt. This pitta dosha takes leading part in the production of Dhatushaiithlya and dhatugauravata.

Describe pathogenesis taking place during samprapti is srotorodha which generates disturbance in dhatuposhana and lastly Dhatuksaya.

Causative factors of Pandra are widely distributed in various samhita. According to Acharya Sushruta Rakta gets vitiatiated by Diwaswapa, Viruddhabhojana and
Charak stated that Suppression of Chhardi (Nausea, Vomiting), Vegavarodha, Virudha Anna Sevana, excess intake of Sour taste foods and Excess intake of Salty foods. All these factors cause improper digestion of food which leads to improper Rasa Dhatus formation and further hamper Rakta Dhatu, mamsa Dhatu Formation and so on thus lead to Pandu Roga. Involving vitiation of Agni and ama production, which in next phase obstruct the Dhatuvaha srotas which lead to disturbance in Dhatuposhana Krama and ultimately produces Pandu.

CONCLUSION
1. In Ayurveda literature is described in detail. According to charaka suppression of Nausea and Vomiting (Chhardi), Supresion of Natural Argures (Vegavarodha), Virudha Anna Sevana and Excess Sour Intake (Atiutama Rasa) and Excess Salty food intake (Atiulavan Rasa) are causative factors of Pandu. Sushruta Stated that Rakta Dhatu gets vitiated by Diwaswapa, Krodha, and Ahiyakara ahara vihara. Causes (Hetus) of Pita and Rakta Prakopa are also causes of Pandu.
2. Poor people they can’t take fresh fruits, green leafy vegetables, cereals, milk, nutritional Dietetc. Poverty, malnutrition, stress- strain, workloads, changed life style are the triggering factors for Pandu Vyadh.
3. Panduta is described both primary and secondary disease explain after Ajirna, Krimi, Chapter.
4. Pandu and etiological factors have been described very basically etiopathogenesis.

REFERENCES