

## TO UNDERSTAND THE CONCEPT BEHIND USING PANCHAGAVYA GHRITA, MAHATIKTAKA GHRITA, KALYANAKA GHRITA IN THE TREATMENT OF PANDU & KAMALA ROGA”

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### ABSTRACT

**Introduction:** *Pandu* and *Kamala* are said to be the diseases which are inter-related. *Pandu* is said to be *nidanarthakara* for *Kamala*. *Pandu roga* is characterized by *alparakta*, *alpamedaska*, *nissaara awastha* which can be co-related to the paleness of the body. *This* may be due to reduced blood flow or oxygen or due to decreased no of blood cells and anemia is one of the most common causes of paleness, hence *panduroga* can be correlated with anemia. Anemia is one of the most common causes of paleness. Globally anemia affects 1.62 billion people, which corresponds to 24.8% of population. In India, anemia affects an estimated 50% of the population. *Kamala* can be correlated with jaundice according to their resemblance in signs and symptoms. The incidence of jaundice is approximately 40,000 per 100,000

individuals of intensive care unit patients. **Methodology:** Retrospective analysis was done based on the available literature and various studies published both in print and medical media. **Result:** *Panchagavya ghrita* is ideal to be administered in *vataja*, *kaphaja*, *mrudbakshanajanya pandu* and *shakhashrita kamala*. Administration of *Mahatikataka ghrita* has to be done in *bahu pitta awsatha* of *pithajapandu* and *kostashakhashrita kamala*. *Kalyanaka ghrita* would be ideal to be administered in *kaphaja*, *tridoshajapandu*, *shakhashrita* and *kostashakhashrita kamala*. **Discussion:** Ingredients of *Panchagavya*, *Mahatiktaka*, *Kalyanaka Ghritas* are *tikta rasa pradhana* and having special action on *yakrit*. *Panchagavya ghrita* is *tridoshaghna*, *ojasya*, *Rasayana*. *Mahatiktakaghrita* is *pitta vata hara*,

whereas *kalyanaka ghrita* is *raktashodhaka, rasayana*. Hence can be judiciously used in conditions associated with *pandu* and *kamala* as *shodhananga* and *shamanangasneha*.

**KEYWORDS:** *Pandu, Kamala, Panchagavyaghrita, Mahatiktakaghrita, Kalyanakaghrita, Snehapana.*

## INTRODUCTION

*Ayurveda* is the science of life that is focused on the maintenance of positive health in healthy and eradication of ailments in diseased through its holistic approach, lifestyle practices, dietary habits and medications. Malnutrition either due to lack of balanced diet and population explosion in today's world has led to the development of various diseases and *Pandu Roga* is one of such disease. *Ayurveda* described *Pandu* as *Pitta Pradhana vyadhi* associated with *Rasa* and *Rakta Dhatu*.<sup>[1]</sup> *Kamala* is explained as one of the *Raktapradoshaja vyadhi*.<sup>[2]</sup>

*Pandu* is said to be *Nidanarthakara* for *Kamala*.<sup>[3]</sup> i.e., when *Pandu* is not treated properly it can lead to *Kamala*. Thus, *Kamala* can be considered as an effect of untreated *Pandu* or *Pandu* which runs a chronic cause. When the patients who is suffering from *Pandu*, during the process of recovery or after getting cured, consumes *Pitta* aggravating foods and life activities in excess, the blood gets severely aggravated and burns the muscles eg; excess intake of *kshara, amla, lavana rasa dravyas like masha, pinyaka, tila and viharas like bhaya, chinta, krodha* etc.<sup>[4]</sup>

*Pandu roga* is characterized by the paleness of the body which may be due to reduced blood flow or oxygen or due to decreased no of blood cells and anemia is one of the most common causes of paleness, hence *panduroga* can be correlated with anemia.<sup>[5]</sup> Globally anemia affects 1.62 billion people, which corresponds to 24.8 % of population. In India, anemia affects an estimated 50% if the population.<sup>[6]</sup>

*Kamala* can be correlated with jaundice according to their resemblance in signs and symptoms. Jaundice, icterus, is yellowish discoloration of tissue resulting from the deposition of bilirubin.<sup>[7]</sup> Jaundice occurs when there are disruptions along this metabolic pathway, causing an increase in unconjugated bilirubin (e.g., from increased red blood cell destruction or impaired bilirubin conjugation) or conjugated bilirubin (e.g., from hepatocellular damage

or biliary tract obstructions).<sup>[8]</sup> The incidence of jaundice is approximately 40,000 per 100,000 individuals of intensive care unit patients,<sup>[9]</sup>

*Ghrita* increases *Agni*, and all digestive energies and enzymes of the body. *Ghritha* promotes the *bhutagnis*, the elemental fires which dwell in the liver and govern the transformation of food in the body. It does not clog the liver, as do other oils and fats, but strengthens it. It is food for *majja-dhatu*, bone marrow and nerve tissue, and feeds the brain.<sup>[10]</sup>

Medicated ghee controls excessive tissue damage which is caused by vitiated *pitta* in *pandu* and *kamala*. *Ghrita* balances *pitta*, combats inflammation, corrosion and excessive heat caused by *pitta*. *Ghrita* is a *dosha* specific and disease specific remedy in *kamala*. It causes micro-cleansing of the channels and enables flow of nutrients. It provides unctuousness and lubrication of tissues and related channels.<sup>[11]</sup>

## OBJECTIVES OF THE STUDY

1. To study various references available on *Panchagavya*, *Mahatiktaka*, *Kalyanaka ghrithas* in ayurvedic treatises.
2. To analyze the clinical usage and effect of *Panchagavya*, *Mahatiktaka*, *Kalyanaka ghrithas* in different *awasthas* of *pandu* and *kamala*.

## MATERIALS AND METHODS

### Literature Review

References has been collected from ancient Ayurvedic texts, modern clinical text books, Research Journals, and electronic databases and thoroughly studied for the usage of *Mahatiktaka*, *Kalyanaka*, *Panchgavya Ghritas* with respect to different *awasthas* in *pandu* and *kamala*.

### Disease Review

As mentioned in table I, *Pandu* is *nidanarthakara* for *kamala*. Both *pandu* and *kamala* are *pitta pradhana tridoshaja vyadhis*, with mainly *rasa*, *rakta*, *mamsa dhatu* involvement. *Rasa*, *raktavaha srotas* along with *annavah* and *pureeshavaha srotas* vitiation. *Sanga* and *vimargagamana* being main *srotodustiprakara*. *Jataragni* and *dhatvagni mandhya janya vikaras*,<sup>[3]</sup> As both *pandu* and *kamala* are associated with each other for the manifestation of disease, hence the *ghritas* mentioned in same *adhikaras* can be administered in different *awasthas* of these diseases.

Table I: Disease review.

<i>Samprapti Ghataka</i>	<i>Pandu</i> <sup>[12]</sup>	<i>Kamala</i> <sup>[13]</sup>
<i>Dosha</i>	<i>Pittapradhana Tridosha-Sadaka, Ranjaka Pitta, Vyana, Samana Vata, Avlambaka, Kledaka Kapha</i>	<i>Pittapradhana Tridosha. Pitha- Ranjaka, bhrajaka, alochaka, pachaka pitta Vata-udana, vyanavata Kapha-kledakakapha</i>
<i>Dushya</i>	<i>Rasa, Rakta, Twak, Mamsa</i>	<i>Rasa, Rakta, Mamsa (Jeerna Awastha)</i>
<i>Srotas</i>	<i>Rasavaha, Rakta Vaha</i>	<i>Rasa, Rakta, Anna, Pureeshavaha</i>
<i>Srotodushti</i>	<i>Sanga, Vimargagamana</i>	<i>Atipravrutti, Sanga, Vimargagamana</i>
<i>Adhishtana</i>	<i>Sarva Shareera, Twak</i>	<i>Koshta-Mahasrotas-Yakrit Shaka-(Raktadi) Twak, Netra, Nakha, Mutra</i>
<i>Ashaya</i>	<i>Amashayotha (Santarpana)</i>	<i>Adho Amashaya</i>
<i>Agni</i>	<i>Jataragni and Dhatvagni Mandhya (Rasa, Rakta, Mamsa, Medha)</i>	<i>Jataraagni And Dhatwagni Mandhya</i>
<i>Vyadhi Swabhava</i>	<i>Chirakari</i>	<i>Chirakari</i>
<i>Sadhyasadhya</i>	<i>Sadhya /Krichra Sadhya Acc to Dosha and Kala</i>	<i>Sadhya /Krichra Sadhya Acc to Dosha and Kala</i>

### Drug review

The selected ghrilas i.e., *panchagavya*, *mahatiktaka* and *kalyanaka ghrilas* based on their ingredients and *rasa panchakas*, we can ascertain that;

- *Panchagavyaghrila* is *Agni Deepaka*, *Srotoshodhaka*, *Anulomana*, *tridoshaghna*, *Medhya*, *Ojasya*, *Rasayana* hence can be administered judiciously in *kaphajapandu*, *vatajapandu* and *kamala*.
- *Mahatiktakaghritha* can be administered mainly *pittaja pandu* and *kamala* due to *tikta rasa* and *kleda hara* properties and also in *kaphajapandu* due to action on pacification of *kapha*.
- *Kalyanakaghrila*, with predominance of *tikta rasa*, *laghuguna*, *ushnavirya*, *katuvipaka*, being *Medhya*, *Balya*, *agnideepaka*, hence to be used in mainly *kaphajapandu*. and also, can be used judiciously in *tridoshaja* conditions due to its dosha hara properties.<sup>[14]</sup>

Various references of *panchagavya*, *mahatikaaka*, *kalyanaka ghrilas* in ayurvedic treatises are as mentioned in table 1 with *rogadhikara* of each *ghritas* and *rasapanchakas* in table no II, III, IV, V and VI respectively.

**Table II: References of Panchagavya, Mahatikaaka, Kalyanaka Ghrita in ayurvedic treatises.**

Treatises	Panchagavya Ghrita	Mahatikaaka Ghrita	Kalyanaka Ghrita
<i>Charakasamhita</i>	Apasmarchikitsa 10/17-24, Pandu chikitsaadhyaya 16/43	Kushtachikitsa 7/144-150 Pandu chikitsaadhyaya 16/43	Unmadachikitsa 9/35-41 Pandu chikitsaadhyaya 16/43
<i>Sushruthasamhita</i>	Panchagavyagrita 1/2/3 Uttaratantra, jwaradhyaya 39/ 230-243	Chikitsasthana, kushtachikitsaadhyaya 9/7-9	Uttaratantra Mahakalyanakagrita, jwaradhyaya 39/ 235-239 & Unmadachikitsaadhyaya 62- 23-27
<i>Astangasangraha</i>	Mahapanchagavyagrita uttaratantra, apasmarchikitsaadhyaya, 10/11	-	Uttaratantra, unmadapratisheadaadhyaya, 9/18
<i>Astangahridaya</i>	Uttaratantra, apasmarchikitsaadhyaya, 7/18-23	Chikitsasthana, Kushtachikitsa 19/9-11	Uttaratantra, unmadapratisheadaadhyaya, 6/26-28
<i>Yogaratanakara</i>	Purvakhanda 5-1 Apasmarchikitsaadhyaya, swalpapanchagavyagrita	YR. UTT.12/1-6	YR PUR 13 -1-8 P 491
<i>Chakradatta</i>	Bruhatpanchagavyagrita Apasmarchikitsa 21/17-22	Vranashotha 44/ 104-110	Unmadachikitsa 20/21-27
<i>Bhaishijyaratnavali</i>	-	Kushtadhikara 118- 121	-
<i>Sharangadhara</i>	-	Chi 9/45-50	Chi 9/38-43
<i>Bhava prakashanigantu</i>	-	-	Unmadadhikara 22/65
<i>Gadanigraha</i>	Prayogakhanda, Gritakalpa Mahapanchagavya 323-329	Prayogakhanda 403-410	Prayogakhanda 363-369

**Table III: Panchagavya Ghrita Rogadhikara.**

Treatises	Panchagavya ghrita			
	Reference	Rogadhikara		
		Pandu	Kamala	Others
<i>Charaka Samhita</i>	Chi 10/17-24 Cha chi 16/43	+	+	Apasmar, Jwara, Unmada, Shotha, Udararoga, Gulma, Arsha, Halimaka, Grahabadha and Chaturthakjwar.
<i>Sushrutha Samhita</i>	utt39/ 230-243	+	-	1 panchagavya with prakshepa -vishamajwara 2-panchagavya (only) 3- panchagavya -Jeernajwara, shopha, pandu
<i>AstangaSangraha</i>	Utt10/11	+	+	Jwara, apasmara, udara, bhagandhara, shopha, arsha,

				gulma, kasa.
AstangaHridaya	Utt7/18-23	+	+	Apasmar, jwar, unmadA, udarroga, bhagandar, shopha, arsha, gulma, kasa and grahabadha.
Yoga Ratnakara	Purvakhanda 5-1 Apasmarachikitsaadhyaya, (swalpapanchagavyagrita)	-	-	Chaturthikjwar, unmad, graha dosha and apasmara.
Chakradatta	Bruhatpanchagavyagrita Apasmarachikitsa 21/17-22	+	+	Apasmara, jwara, kasa, shwayathu, gulma, arsha, halimaka
Gadinigraha	Prayogakhanda (Mahapanchagavya) 323-329	+	+	Chaturtakajwara, shwayatu, bhagandhara, Gulma,

Table IV: Mahatiktakaghrita.

Treatises	MahatiktakaGrita			
	Reference	Rogadhikara		
		Pandu	Kamala	Others
Charaka Samhita	Chi 7/144-150	+	+	Arsha, Visarpa, Amlapitta, Vatarakta, Unmada, Visphotaka, Kushta, Jwara, Kandu, Hridroga, Gulma, Raktapradara, Gandamala.
Sushruta Samhita	Su chi 9/7-9	+	-	Kushta, Vishamajwara, Rakta Pitta, Hridroga, Unmada, Apasmara, Gulma, Pidaka, Asrigdhara, Gandamala, Sleepada.
AstangaHridaya	Chi 19/9-11	+	+	Pitaajakushta, Visarpa, Kandu, Galaganda, Dushtanadi, Vrana, Apachi, Visphota, Vidradhi, Gulma, Shopha, Unmada, Hridroga, Timira, Vyanga, Grahani, Shiwithra.
Yoga Ratnakara	Utt.12/1-6	+	+	Visarpa, Amlapitta, VataRakta, Vivspota, Pama, Unmada, Jwara, Kandu, Gulma, Gandamala, Bhagandhara.
Chakradatta	Vranashotha 44/ 104-110	+	+	Vatarakta, kushta, raktapitta, visarpa, amlapitta, jwara, kandu, hridroga.
BhaishijyaRatnavali	Kustadhikara 118-121	+	-	Amlapitta, Raktapitta, Visarpa, Kusta, Arshas.
Sharanghadhara	Chi 9/45-50	+		Vatarakta, Kushta, Raktapitta, Raktarsha, Gulma, Visarpa, Pradara, Gandamala, Kshudraroga, Jwara.
Gadanigraha	Prayogakhanda 403-410	+	+	Vataraktha, Visarpa, Raktasrava Daruna,



Table V: Kalyanaka Ghrita.

Treatises	Kalyanaka Ghrita			
	Reference	Rogadhikara		
		Pandu	Kamala	Others
Charakasamhita	Chi 9/35-41	+	-	Chardi, Arsha, Mutrakrichra, Visarpa, Kandu, Visha, Unmada, Meha.
Sushruthasamhita	<ul style="list-style-type: none"> <li>Mahakalyanakaghrita/uttaratantra, jwaradhyaya 235-239</li> <li>Unmadachikitsaadyaya 62- 23-27</li> </ul>	-	-	Gulma, Kasa, Jwara, Shwasa, Kshaya, Unmada.
Astangasangraha	Utt 9/18	+	-	Bhoota, GrahaRoga, Unmada, Kasa, Apasmara, Kandu, Visha, Shosha, Meha, Moha, Jwara, Mangalakara, Sloubhgyakara, PunsavanaUpyoga
Astangahridaya	Utt 6/26-28	+	-	Kasa, Apasmara, Bhutonmada, Balagraha, VishaVikara, Garavisha, Vandhyatva, Yoniroga.
Yoga ratnakara	Purva khanda 13 /1-8	+	-	Apasmara, Jwara, Shosha, Kasa, Mandagni, KshayaRoga, VataRakta, Pratishyaya, TrutiyakaJwara, Kandu, Visarpa, Unmada, Prameha
Chakradatta	Unmadachikitsa 20/21-27	+	-	Mutrakruchra, Visarpa, Kandu, Unmada, Swarabheda, Visarpa, Garavisha, Vandhya.
Sharanghadhara	Chi 9/38-43	+	-	Apasmara, Unmada, Vatarakta, Kandu, Mutrakrichra, Visarpa, Prameha, Vandhyatva, Pratishyaya, Katishoola
Bhava prakashanigantu	Madhyamakhanada, 22-65-66			Graha, Unmada
Gadanigraha	Prayogakhanda 363-369	+	-	Apasmara, Jwara, Kasa, Shosha, Kandu Vataraktha, Visarpa, Unmada, Asrigdhara

Table VI: Rasapanchaka of Panchagavya, Mahatiktaka, Kalyanaka Ghrita.

Rasapanchaka	PanchagavyaGhrita <sup>[15]</sup>	MahatiktakaGhrita <sup>[16]</sup>	KalyanakaGhrita <sup>[17]</sup>
Ingredients	Godugd, godadhi, gomutra, go ghrita, gomaya rasa, devapanchamula, daruharidra, triphala, apamarga, katukarohini, duralabha, kutajatwak.	Saptaparna, ativisha, sha mpaka, musta, ushira, trip hala, patola.	Triphala, sariva, phalini, daruharidra, s halaparni, brihati, nagakeshar a, ela, kushta, vishala.
Rasa	KatuTikta	Tikta, Madhura	Katu, Tikta
Guna	Laghu, Ruksha, Teekshna	Laghu/ ishat guru, ruksha, snigdha	Laghu, ruksha
Veerya	Ushna	Sheeta	Ushna
Vipaka	Katu	Katu	Katu
Karma	Anulomana, Medhya,	Anulomana, Medhya,	anulomana, Medhya

	<i>Agni Deepaka, Sukshma, Srotoshodhaka, Ojasya, Rasayana</i>	<i>rasayana, raktaprasadaka Twachya, kledha hara</i>	<i>brumhana, vrushya, Balya, Varnya Agnideepaka</i>
<i>Doshagnata</i>	<i>Kapha- vatashamaka</i>	<i>Pitta- kaphashamana</i>	<i>Tridosahara, kaphajaujmada</i>

### Treatment review

*Ghrita* is the best of all fats, it is one of the *nithyarasayana* mentioned in *Ayurveda* which possess multisystemic benefits. It is a dietary supplement as well as a drug in its purest form and in combination. It is having *madhurasa, snigdha*guna, provides *mardhuvata, sheetavirya*. *Ghrita* alleviates *vata* and *pitta* without increasing *kapha* much. It enhances digestive fire, improves eye sight, memory, intelligence, vitalizes the body and gives lusture. It improves semen and ojas. Most highlighted property of *ghrita* is, it assimilates the property of the drug added to it providing a synergetic action in combination.<sup>[14]</sup>

In Different Pathologies related to *pandu* and *kamala*, The logic of using specific *Ghritas* can be judiciously done after analyzing vitiated *dosha, dhatus, srotas* etc, as mentioned in table VII and analyzing the specific *ghritas prayoga* in different types of *pandu* and *kamala* based on similar criteria as mentioned in Table VIII and IX respectively.

**Table VII: Logic of Ghrita Prayoga in Different Pathologies of pandu and kamala.**<sup>[12,13]</sup>

<b>Rogaawastha</b>	<b>Ghritaprayoga in different rogaawasthas</b>
<b>1. Sneha kshayaawastha:</b> (Adopting SamanyaSidhanta) <i>Rasa Dhatu Avarodha</i> resulting indhatu shaithilyata hence, “ <i>swa yoni vardhanadravyaprayoga</i> ”	<ul style="list-style-type: none"> <li>• <i>Vataja, pittaja, kapahajapandu</i></li> <li>• After <i>shodhana</i> in <i>mridbhakshana janya pandu</i></li> <li>• <i>Kosta shakahashrita kamala</i>, as <i>snehapana</i> before <i>snigdha mrudu virechana</i>.</li> </ul>
<b>2.Dhatu kshaya awastha:</b> Eg; <i>Jeernajwara- Manda kapha, vatapittajajwara- Rooksha</i>	<ul style="list-style-type: none"> <li>• <i>Vatajapandu</i></li> <li>• <i>Pittajapandu</i></li> <li>• <i>Tridoshajapandu</i></li> <li>• <i>Shakahshrita kamala</i></li> </ul>
<b>3.Ojo Kshayaawastha:</b> <i>Durbalata (weakness), nidra ,tandra (stupor) gatradasa (malaise), balakshaya (reduced strength), sangnyanasha, moha (altered consciousness)</i>	<ul style="list-style-type: none"> <li>• All types of <i>pandu</i> and <i>kamala</i> according to <i>awastha</i>.</li> </ul>
<b>4.As shodananga snehapana</b>	<ul style="list-style-type: none"> <li>• As <i>poorvakarma</i> before <i>shodhana</i>. To palliate the <i>rookshata</i> of <i>dhatus</i>, to bring the <i>doshas</i> towards the <i>kosta</i>, and <i>vatanulomana</i>.</li> </ul>



Table VIII: Ghrita prayoga in different types of Pandu.

Types of <i>pandu</i> <sup>[18]</sup>	Pathology	Awastha	Ghritaprayoga
Vataja	Dhatu kshaya	Rookshatasnehakshaya	Ideal choice would be panchagavyaghrita due to vatashamaka properties. Also, any of the all above 3 ghrilas can be used. <sup>[14]</sup>
Pittaja	Raktha dhatu kshaya & pitta vridhi	Pitta ativridhilakshana	Mahatiktaka ghrita would be ideal choice due to pitta shamaka properties. <sup>[14]</sup>
Kaphaja	Margaawarodha	Kaphavidhi, pitta vriddhi, raktadi dhatu vridhi awastha	Kalyanakaghrita would be ideal and second choice would be panchagavyaghrita due to kaphavatashamana properties. "shlaishmikekaturukshoshna m" <sup>[19]</sup>
Thridoshaja	Kalyanakaghrita would be ideal in kaphapradhanatridoshaawastha. <sup>[14]</sup>		
Mritbhakshanajanya pandu	Ahara rasa apachana, kaphavidhi, margaawarodha	Rakthakshaya, rookshata hence after teekshnashodhana	Panchagavyaghrita would be ideal choice. Whereas, all above 3 ghrilas according to dosha awasthas can be used.

Table IX: Ghrita prayoga in different types of kamala.<sup>[13]</sup>

Shakashrita kamala	Koshtashakashrita kamala
<p><b>Pathology</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Pitta margaawarodha by vitiated kapha</li> <li><input type="checkbox"/> Vimargagamana (shakha)</li> <li><input type="checkbox"/> Dhatu kshaya</li> </ul> <p><b>Treatment principles</b></p> <ol style="list-style-type: none"> <li>1. <b>Kaphavilayana</b>- channel of Ranjaka pitta cleared <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <i>katu</i> (margashodhaka, kapha hara, shota hara, ushna)</li> <li><input checked="" type="checkbox"/> <i>lavana</i> (pachanadeepanachedana, bedana, ushna, vikasi)</li> <li><input checked="" type="checkbox"/> <i>Amlarasa</i>(deepana,pachana,anulomana) EG; Marichapippali, Matulunga, Shushkamulaka</li> </ul> </li> <li>2. <b>Snehapana</b>: as per dosha/rogiawastha.</li> <li>3. <b>MriduShodhana</b>: virechana karma. Eg: GomutraHareetaki.</li> <li>4. <b>Shamana for Dhatu pusti</b>- InManda Kapha withVata Pitta Vitiated status-(as mentioned in jwarachikitsa)- For balavardhana-ghritaprayoga i.e.- kalyanaka ghrita/Panchagavya ghrita to be used.</li> </ol>	<p><b>Pathology</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> RaktaPradoshajaVikara</li> <li><input checked="" type="checkbox"/> Ranjaka Pitta Increased koshta and shaka</li> <li><input checked="" type="checkbox"/> Bahupitta Kamala- Hemolysis (pittaja Pandu)</li> </ul> <p><b>Treatment principles</b></p> <ol style="list-style-type: none"> <li>1. Eliminate ranjaka pitta from blood-Pittagnadravya</li> <li>2. Control production of ranjaka pitta</li> <li>3. Supports blood formation- relieve pandu.</li> </ol> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Mruduvirechana- pitta rechana- katutikata rasa</li> <li>2. Chakradatta-</li> <li>3. <b>snehapana</b>(arohana) followed by virechana. colorectic action-stimulate gall bladder to release more bile into duodenum- stasis can be removed.</li> <li>4. Ghrita has raktaposhana, pitta rechana qualities.</li> <li>5. kalyanakagrita and mahatiktakagrita would be ideal as; drugs possess, taiktarasa with raktashodhaka, asrukpitta hara, rasayana, pandu kamala hara properties hence can be used in this condition.</li> </ol>

## RESULT AND DISCUSSION

*Pandu* is *nidanarthakaravyadhi* for *kamala*. *Pandu roga* is due to vitiation of *rasa* and *raktavahasrotas* whereas *kamala* is *raktapradoshajavyadhi*. As per above references, similarities in manifestation of *pandu* and *kamala roga* are as that of different types of anemia and jaundice respectively depending on different *dosha* and disease *awasthas* which results in or due to impaired liver functions. Administration of ghee has shown to reduce the oxidative stress and have protective effects on liver,<sup>[20]</sup> Ghrita has properties of enhancing benefits of drugs with which it is processed.<sup>[14]</sup>

*Dalhana* opines that as *pandu* is *pitta pradhanavyadhi*, hence *ghritaprayoga* would be ideal.<sup>[12]</sup> Hence, after judiciously analyzing the disease *awsathas*, *panchagavya*, *mahatiktaka* and *kalyanakaghritas* can be used in all types of *pandu* and *kamala*. Whereas, in *vatajapandu* during *atiruksha awastha*, *panchagavyaghrita* would be ideal for administration. In *pittavidhi awastha* of *pithajapandu*, *mahatiktaka ghrita* would be beneficial. In *kaphajapandu*, addressing pathology *margaavarana* for *amapachana* and *agnideepana*, *kalyanakagritha* would be ideal and also *panchagavya ghrita* administration can be done due to *katu*, *rooksha*, *ushna gunas* and *kaphavata shamana* properties. In *tridoshajapandu* depending on *dosha awastha* *ghritas* can be selected and ideal would be *kalayanakagritha* in *kaphapradhana tridoshajaawastha*. In *mritbhakshanajanya pandu* due to *raktakshaya* and *atirukshaawastha*, after *shodhana* therapy, any above mentioned *ghritas* can be administered but *panchagavyaghrita* would be ideal due to *teekshana* and *Sukshma* properties of drugs in it.

In *shakashrita kamala* during *vatapithavidhi awastha*, for *balavardhana* purpose, *kalyanakagritha* and *panchagavya ghrita* are indicated. In *koshtashakashrita kamala*, depending on *dosha awastha*, for the purpose of *shodhananga snehapana*. *kalyanakagritha* and *mahatiktakagritha* would be ideal. As drugs possess, *tiktarasa* with *rakta shodhaka*, *asrukpitta hara*, *rasayana*, *pandukamala hara* properties hence can be used in this condition.<sup>[13]</sup>

## CONCLUSION

Drugs used in *Panchagavyaghrita*, *Mahatiktakagritha* And *Kalyanakagrithas* predominantly possess *tikta rasa*, having special action on *yakrit*. Hence these *yogas* act as *pandu hara*, *kamala hara*, *raktajaroganashaka*, *asruk pitta hara*. Hence, selection and administration of these *ghritas* can be judiciously done in *pandu* and *kamala roga*.<sup>[12,13]</sup>

*Panchagavya ghrita* can be administered in *vatajapandu*, *kaphajapandu*, *mrudbakshanajanyapandu* and *shakhashrita kamala*. *Mahatikataka ghrita* would be ideal to be administered in *bahu pitta awsatha* of *pittajapandu* and *kostashakhashrita kamala*. *Kalyanaka ghrita* would be ideal to be administered in *kaphajapandu*, *tridoshajapandu*, *shakhashrita kamala* and *koshtashakhashrita kamala*.

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