



Nutraceutical Aspects Of Ghrita

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ABSTRACT

Ghrita is a popular milk product prepared indigenously in most households and is widely available commercially. It has high nutraceutical values. Ghrita by its nature has; Madhura rasa (sweetish taste), Madhura vipaka (post-digestion sweet taste), Laghu (easy to digest), Sheet virya (cold in potency). Ayurveda proposes certain rules for its consumption and specifies some adjuvant to contradict its ill effects. It is used as Pathya (diet) aahar in diseases as well as, an important ingredient in various medicinal formulations. With the advent of Urbanisation, Industrialisation and increasing work culture, human lifestyle and food habits have been drastically changed. Because of these changes, the population is gradually suffering from many nutritional deficiencies leading to a large number of metabolic and degenerative diseases. In recent years, an innovative pharmaceutical product, "Nutraceutical" has made a special place in the field of nutritional supplementation which can be correlated to Pathya Kalpana in Ayurveda. It not only provides health benefits but is also used for the prevention and treatment of acute and chronic diseases. The present study aims to reveal the Ayurvedic perspective of Nutraceuticals with special reference to Ghrita by carrying out the pharmaceutical procedure and qualitative analysis.

INTRODUCTION

The term "nutraceutical" was coined by Stephen De Felice, MD, founder and chairman of the Foundation for Innovation in Medicine (FIM), Cranford, in 1989.¹ It combines the words "nutrition" and "pharmaceutical," serving to clarify discussions regarding the intersection of food and medicine. Over the years, it has become a standard term in the nutritional field. A nutraceutical is broadly defined as any substance considered as food, or a component of food, with potential health or medical benefits, including the prevention, treatment, or cure of diseases. Today, nutraceutical is recognized globally as the key term that describes the evolving industry of food or food-related substances with promising medical and health benefits.² These nutraceuticals can take various forms, such as dietary supplements, herbal products, and processed items like cereals, soups, and beverages. They hold the potential to significantly contribute to improving health, delaying the aging process, and preventing chronic diseases.³ The roots of the concept of nutraceuticals and functional foods can be traced back to the ancient Ayurvedic system of healthcare, which emphasizes the importance of a nutritious diet for maintaining a healthy body and preventing diseases (Charak Samhita Sutrasthan 5).⁴

Within Ayurveda, there exists a specialized branch of pharmaceutics known as Bhaishajya Kalpana, dedicated to the formulation of medicines. This branch primarily encompasses two types of formulations: Primary formulations and Secondary formulations. Primary formulations comprise the fundamental five types, namely Swarasa (Expressed juice), Kalka (Paste), Kwatha (Decoction), Hima (Cold infusion), and Phanta (Hot infusion). On the other hand, Secondary formulations encompass preparations like Avaleha Kalpana (Medicated semisolid preparation), Asavarishta Kalpana (fermentative preparation), Sneha Kalpana (Medicated fatty preparation), Ksheerapaka Kalpana (Medicated milk preparation), and more. These are referred to as secondary preparations because they are created by utilizing one or more primary formulations in conjunction with additional substances. This article explores the correlation and discussion between nutraceuticals and Sneha Kalpana (Ghrita) within the context of Ayurveda.⁵

Concept of Nutraceuticals

Nutraceuticals have the potential to enhance well-being, slow down the aging process, prevent persistent ailments, prolong life expectancy, and provide support for the body's structure and function.⁶ Unlike pharmaceuticals, nutraceuticals are typically not protected by patents. While both pharmaceutical and nutraceutical compounds can be utilized for treating or preventing diseases, only pharmaceutical compounds are officially sanctioned by the government.⁷ According to the definition, a dietary supplement is a product that contains one or more of the following dietary components: minerals, vitamins, amino acids, medicinal herbs or other botanicals, dietary substances intended for supplementing daily intake, or a concentrate, metabolite, constituent, or extract of these elements, either individually or in combination. Nutraceuticals fall

into this category of nutritional supplements that are used for purposes beyond basic nutrition.⁸In recent times, nutraceuticals have gained significant attention owing to their potential nutritional, safety, and therapeutic benefits. According to a recent market research report, the global nutraceuticals market has been expanding, and it was projected to reach a value of US \$250 billion by 2018.⁹

Nutraceuticals means food or constituents of food that provide medical or health benefits along with the prevention and treatment of disease. Such products may range from isolated nutrients, herbal products and processed foods such as cereals, soups, and beverages. These can be grouped into 3 broad categories:

- i. Nutrients : substances with established nutritional functions such as vitamins, minerals, amino acids and fatty acids.
- ii. Herbals : herbs or botanical products such as concentrates and extracts. e.g: Aloe vera, Garlic, Ginger etc.
- iii. Dietary supplements : Antioxidants, Probiotics, Prebiotics etc.

Benefits of Nutraceuticals¹⁰

1. May have natural dietary supplement, so do not have unpleasant side effects.
2. May increase the nutritional value of diet and improves health.
3. May easily be available and economically affordable.

Ayurvedic Perspective on Nutraceuticals

Within Ayurveda, there exists a specialized branch known as Bhaishajya Kalpana, which is dedicated to the art of formulating medicines. This branch encompasses two main categories of formulations: Primary formulations and Secondary formulations. Primary formulations comprise the fundamental five types of preparations, which are as follows:

1. Swarasa (Expressed juice)
2. Kalka (Paste)
3. Kwatha (Decoction)
4. Hima (Cold infusion)
5. Phanta (Hot infusion)

On the other hand, Secondary formulations include various preparations such as Avaleha Kalpana (Medicated semisolid preparations), Asavarista Kalpana (fermentative preparations), Sneha Kalpana (Medicated fatty preparations), Ksheerapaka Kalpana (Medicated milk preparations), and more. These are termed secondary preparations because they are created using one or more primary formulations in combination with additional substances. In Ayurveda, a significant number of drugs are administered in the form of medicated sneha (fatty preparations) to enhance the absorption of these drugs. Acharya Charak, in Sutra Sthana 1., describes four types of mahasneha (medicated fatty substances) that are Ghrita (ghee), taila (oil), vasa (muscle fat), and majja (marrow). These four types of sneha are employed in various diseases and in various forms.¹¹ Medicated Ghrita Kalpana (Sneha Kalpana) can be likened to nutraceuticals, but it is not equivalent to functional food or dietary supplements. It serves the dual purpose of providing both nutrition and pharmaceutical effects. Ghrita contains components such as Vitamin A, D, E, K, triglycerides, diglycerides, monoglycerides, keto acid glycerides, free fatty acids, phospholipids, fat, protein, lactose, ash, and more. Nutraceuticals, in contrast, can be defined as a type of food or nutrient that offers health benefits, including the prevention and treatment of diseases. They go beyond dietary supplementation to assist in the prevention and management of various diseases and disorders.

Ghrita as Nutraceutical

In the ancient Ayurvedic texts, Ghrita is categorized as a Jangama dravya, originating from the animal kingdom, particularly derived from animals like cows, buffaloes, and goats. Within this category, Ayurveda recognizes Gau Ghrita, or cow's ghee, as the most superior choice for both dietary and medicinal purposes.¹² Ghrita possesses a distinctive quality known as 'sanskarsaya anuvartana,' indicating its ability to assimilate the properties of other substances added during its preparation without losing its own inherent qualities.¹³

The term 'Ghee' finds its origins in the old Sanskrit word 'ghr,' signifying brightness or the act of making something bright. It is typically produced from the milk of cows, buffaloes, or a blend of both.^{14,15} Due to its exceptional capacity to penetrate deeply into bodily tissues, ghee is considered an ideal base for formulating Ayurvedic preparations targeted at specific organs or body systems. Medicated Ghee, known as 'Ghrita' in Ayurveda, involves the processing of ghee with herbal decoctions and fresh herb pastes, selected according to Ayurvedic texts or the Ayurvedic Formulary of India.^{16,17} Cow ghee, with its regenerative properties and the ability to promote the growth of healthy cells, is often recommended for topical applications in treating conditions such as heat or fire-induced wounds, painful ulcers, insect bites, herpes, and leprosy.¹⁸

In Ayurveda, 'Murcchana' samskara, which is the process of fat processing, is considered a crucial step in Ghrita preparation. It entails the use of 'Murcchita' ghee, prepared by incorporating Murcchana herbs such as Emblica officinalis (Indian gooseberry) fruits, Cyperus rotundus (nutgrass) rhizomes, Curcuma longa (turmeric) rhizomes, Terminalia chebula (chebulic myrobalan) fruits, Terminalia bellirica (Bibhitaki) fruits, and Citrus medicus juice in equal proportions, in place of plain cow ghee. Some Ayurvedic texts mention that prior to any Ghritapaka (Ghrita preparation), ghee should undergo 'Murcchana' samskara to enhance its medicinal potency and eliminate undesirable odors and rancidity.^{19,20} Previous studies have demonstrated the positive effects of the 'Murcchana' process, ensuring better acceptance, stability, and an extended shelf life for Ghrita preparations.²¹ Additionally, the 'Shata-Dhauta' process, involving washing purified ghee one hundred

times with water, enhances the stability of Ghrita, making it an elegant and suitable product for topical applications.²² Murcchana herbs, including *T. chebula*, *T. belerica*, *C. rotundus*, *E. officinalis*, and *C. longa*, are rich sources of polyphenolic compounds, which encompass phenolic acids (such as gallic acid, ellagic acid, and chebulinic acid), flavonoids, coumarins, and tannins with proven free radical scavenging capabilities.^{23,24,25,26,27}

GHRITA : A BOON

Ghrita, according to various Ayurvedic acharyas, is considered the finest of all fats.²⁸ It is classified as one of the Nitya Rasayanas, meaning it can be consumed daily and provides numerous benefits across multiple bodily systems.²⁹ Ghrita serves as both a dietary supplement and a pure form of medication, either alone or in combination with other substances. When used regularly, Ghrita exhibits Rasayana properties, nourishing all bodily tissues and enriching the body with essential nutrients. It is also recognized for its Medhya property, particularly in enhancing cognitive functions like Dhi (intelligence), Dhriti (retention), and Smriti (memory).³⁰ Ghrita has the ability to assimilate the properties of accompanying drugs, intensifying their potency manifold and extending its utility in various ways.³¹

Properties of GHRITA

Kashyap Samhita: Alleviates Pitta and Vata and doesn't accumulate Kapha. Increase Bala, agni, buddhi and functions as shodhan of yoni & shukra.³²

Harita Samhita: Alleviates Vata-Pitaa-Kapha and is Madhur Vipaka in nature. It functions as vrishya, Chakshushya, Balya and Medhya. It is indicated in Raktapitta, Netra rog, Kaamla, Pandu and Kshaya. Not indicated in Jwar, Vibandha, Vishuchika, Arochak, Mandagni, Panatyay and Madatyay.³³

Ashtang Hridaya: Dadhimathanoudbhav Ghrita is Vrishya, Sheetal in guna, alleviates Vata, and indicated in Arsha, Ardita, Kasa. Ksheerodbhava Ghrita alleviates Vata, Pitta and is indicated in Raktapitta, Netra rog, Visha, Unmada, Shosha and Jwara.³⁴

Sushrut Samhita: It is Madhur, Saumya, Mridu, Sheet virya, Madhur vipaka in nature and alleviates Vata-pitta dosha. It is Vrishya, Medhya, Vayasthapak, Chakshushya, Vishahar, Ayurvedhak, shamak in properties. It also increases smriti, medha, kaanti, swar, Oja, Tej, Bal. Indicated in Udavart, Unmad, Apasmar, Shool, Jwara and Aanaha.³⁵

Rajnighantu: It alleviates Vata Pitta and is Madhur vipaka in nature. It functions in increasing dhi, kanti, smriti, Bala, Medha and agni.³⁶

Dhanvantari Nighantu : Synonyms of Ghrita are Aajya, Havi, Sarpi, Pavitra, Navnitaja, Amrit, Abhidhaar and Jeevaniya. It is Madhur vipaka, Sheet virya, VP shamak and Vishahar. It functions as dhi, kanti, smriti vardhak, Agnideepak, Balvardhak, Aayushya, Shukrajanak, Netrya. It is indicated in Kshatkshen, Visarpa and agni dagdha.³⁷

Bhavprakash Nighantu: Ghrita functions as Rasayana, Swadu, Chaksushya, Agnidipak, increases Kanti, Oja, Tej, medhya, aayushya and Bal. It is sheet virya, guru, snigdha and kaphakaraka in nature. It is indicated in Udavarta, Jwara, Unmada, Shool, aanaha, Vrana, Kshaya, Visarpa and Raktvikara.³⁸

Table No. 1: Properties of Ghrita³⁹

Properties	Value	
Colour	White to Yellow	
Taste	Pleasant	
Synonyms :	Ajya, Havisha, Sarpi, Ghrita	
Specific Gravity	At 25 - 1.01995	
Reicher Meissel Value	24 - 28	
Moisture	Not more than 0.5 %	
Saponification Value	Not more than 225	
Iodine Value	Not more than 35	
Unsaponifiable matter	Not more than 1.5	
Carotene	Not less than 2000 IU	
Microbial Limits	<i>Escherichia Coli</i>	Absent
	<i>Salmonella spp</i>	Absent
	<i>Staphylococcus aureus</i>	Absent
	<i>Pseudomonas aeruginosa</i>	Absent
Heavy Metals	Lead	10 ppm
	Cadmium	0.3 ppm
	Mercury	1 ppm
	Arsenic	3 ppm

Rasapanchak⁴⁰

1. **Rasa :** Madhura(sweet)
2. **Guna :** Guru (heavy), Snigdha (smooth) and Mridu (soft)
3. **Virya :** Sheeta(cold)
4. **Vipaka :** Madhura(sweet)

5. Karma : It pacifies Vata, Pitta and Kapha Doshas and possesses Dipana and Pachana (carminative) properties Agnideepan, Anabhishtyandi, Ayushya, Balya, Chakshushya, Deepana, Hridya, Kantiprada, Medhya, Ojovardhak, Rasayana, Ruchya, Sleshmavardhan, Snehana, Shukravardhak, Twachya, Vayasthapana, Vishahara, Vrishya.

Dose : 5-20 ml

Concept of Medicated Ghee

Medicated Ghee are unique type of ghrita preparations. These are prepared by a special pharmaceutical procedure known as Murchhana in which ghrita is subjected to various drugs before Sneha paka, This process is applicable to both Taila and Ghrita. It is considered as one of the sanskaras of Sneha. Through it, Sneha acquires specific therapeutic as well as pharmaceutical properties. Bhaishajya Ratnavali was the first treatise that mentioned the benefits and importance of Murchhana Process. There are four types of Sneha described in Ayurveda; among them, Ghrita is the best. It has the most crucial property, which is known as Sanskaranuvartana. It is appetizing and Satmya for every individual since their childhood⁴¹. Ghrita is lipophilic, and due to this property, it facilitates the transportation of ingredients of formulation to the target organ and final delivery inside the cell because the cell membrane also contains lipids⁴².

Chemical Composition of Go-Ghrita: Go ghrita consists of clarified butter derived from cow's milk in which no colouring matter or preservatives is added and contains not less than 76% of milk fat by weight. Ghrita is an oily liquid or a semi solid with granular texture; at room temperature. It is required to be free from animal fats, wax, mineral oil, vegetable oils and fats. Ghrita contains Triglycerides (97.098%), di-glycerides (0.25-1.4%), Monoglycerides (0.16-0.0038%), ketoacid glycerides (0.015- 0.018%), glycerylestes (0.011-0.05%), free fatty acids (0.1- 0.44%), phospholipids (0.2-1.0%), sterols (0.22-0.41%), butyric acid (4.5-6.0%), caprylic acid (0.9-1%), lauric acid (6-7%), myristic acid (21-23%), palmitic acid (19-19.5%), Arachidic acid (0.5-0.8%), oleic acid (27-27.5%)⁴¹.

Table No. 2: Ghrita Formulations in Charaka Samhita⁴³

Sr.no	Reference	Formulation	Indication
1.	Charak Chikitsa 1-2/4	Aamalaka Ghrita	Rasayana
2.	Charak Chikitsa 2-1/33-37	Vajikarana Ghrita	Vajikarana
3.	Charak Chikitsa 2-2/21-23	Vrishya Ghrita	Vajikarana
4.	Charak Chikitsa 2-3/18	Vrishya Shatavari Ghrita	Vajikarana
5.	Charak Chikitsa 2-4/28-29	Apatyakar Ghrita	Vajikarana
6.	Charak Chikitsa 3/219-221	Pippalyadi Ghrita	Jeerna Jwara
7.	Charak Chikitsa 3/222-223	Vasadi Ghrita	Jeerna Jwara
8.	Charak Chikitsa 3/224-226	Baladi Ghrita	Jwara
9.	Charak Chikitsa 4/88	Vasa Ghrita	Raktipitta
10.	Charak Chikitsa 4/95-96	Shatavaryadi Ghrita	Raktipitta
11.	Charak Chikitsa 5/65	Vyushanadi Ghrita	Gulma
12.	Charak Chikitsa 5/69-70	Hingusauvarchaladya Ghrita	Gulma
13.	Charak Chikitsa 5/71-73	Hapushadya Ghrita	Gulma
14.	Charak Chikitsa 5/74-75	Piipalyadya Ghrita	Gulma
15.	Charak Chikitsa 5/105-109	Neelinyadya Ghriya	Gulma
16.	Charak Chikitsa 5/114-117	Rohinyadya Ghrita	P. Gulma
17.	Charak Chikitsa 5/118-121	Traymanadya Ghrita	R. Gulma
18.	Charak Chikitsa 5/122	Aamalkadya Ghrita	P. Gulma
19.	Charak Chikitsa 5/123-125	Drakshadya Ghrita	P. Gulma
20.	Charak Chikitsa 5/142	Dashmooli Ghrita	K. Gulma
21.	Charak Chikitsa 5/143-146	Bhallatkadya Ghrita	K. Gulma
22.	Charak Chikitsa 5/147-148	Ksheershatpalaka Ghrita	K. Gulma
23.	Charak Chikitsa 7/120-121	Vipadikahar Ghrita	Kushtha
24.	Charak Chikitsa 7/140-43	Tiktashatpalaka Ghrita	Kushtha
25.	Charak Chikitsa 7/144-50	Mahatiktaka Ghrita	Kushtha
26.	Charak Chikitsa 7/152-156	Mahakhadir Ghrita	Kushtha
27.	Charak Chikitsa 8/106-110	Duralabhadya Ghrita	Rajyakshma
28.	Charak Chikitsa 8/111-113	Jeevantyadi Ghrita	Rajyakshma
29.	Charak Chikitsa 9/35-41	Kalyanaka Ghrita	Unmada
30.	Charak Chikitsa 9/42-22	Maha kalyanaka Ghrita	Unmada
31.	Charak Chikitsa 9/45-48	Mahapaishachika Ghrita	Unmada
32.	Charak Chikitsa 9/49-51	Lashunadhya Ghrita	Unmada
33.	Charak Chikitsa 9/52-56	Dwitiya Lashunadya Ghrita	Unmada

34.	Charak Chikitsa 10/17	Panchgavya Ghrita	Apasmar
35.	Charak Chikitsa 10/18-24	Mahapanchgavya Ghrita	Apasmar
36.	Charak Chikitsa 11/35-43	Amritprash Ghrita	Kshatksheen
37.	Charak Chikitsa 11/44-47	Shwadanshradi Ghrita	Kshatksheen
38.	Charak Chikitsa 11/50-55	1 st Sarpiguda	Kshatksheen
39.	Charak Chikitsa 11/56-61	2 nd Sarpiguda	Kshatksheen
40.	Charak Chikitsa 11/62-65	3 rd Sarpiguda	Kshatksheen
41.	Charak Chikitsa 11/66-69	4 th Sarpiguda	Kshatksheen
42.	Charak Chikitsa 12/58-59	Chitraka Ghrita	Kshywathu
43.	Charak Chikitsa 13/138-140	Snuhiksheer Ghrita	Udara
44.	Charak Chikitsa 14/230-233	Hirberadi Ghrita	Arsha
45.	Charak Chikitsa 14/234-42	Sunishnnak Changeri Ghrita	Arsha
46.	Charak Chikitsa 15/82-86	Dashmooladya Ghrita	Grahani
47.	Charak Chikitsa 15/87	Trayushnadya Ghrita	Grahani
48.	Charak Chikitsa 15/88-93	Panchmuladya Ghrita	Grahani
49.	Charak Chikitsa 15/125-28	Chandanadya Ghrita	Grahani
50.	Charak Chikitsa 15/171-72	Kshaar Ghrita	Grahani
51.	Charak Chikitsa 16/44-46	Daadim Ghrita	Pandu Roga
52.	Charak Chikitsa 16/47-49	Katukadya Ghrita	Pandu
53.	Charak Chikitsa 16/50	Pathya Ghrita	Pandu
54.	Charak Chikitsa 16/51	Danti Ghrita	Pandu
55.	Charak Chikitsa 16/52	Draksha Ghrita	Pandu
56.	Charak Chikitsa 16/53	Haridradi Ghrita	Pandu
57.	Charak Chikitsa 16/119-20	Vyoshadi Ghrita	Pandu
58.	Charak Chikitsa 17/140	Dashmooladi Ghrita	Hikka Shwas
59.	Charak Chikitsa 17/141-44	Tejovatyadi Ghrita	Hikka Shwas
60.	Charak Chikitsa 17/145	Manhshiladi Ghrita	Hikka Shwas
61.	Charak Chikitsa 18/35	Kantkari Ghrita	V. Kasa
62.	Charak Chikitsa 18/36-38	Pippalyadi Ghrita	Kasa
63.	Charak Chikitsa 18/39-42	Vyushanadya Ghrita	Kasa
64.	Charak Chikitsa 18/43-46	Raasna Ghrita	V. Kasa
65.	Charak Chikitsa 18/123-24	Dashmooladi Ghrita	VK. Kasa
66.	Charak Chikitsa 18/125-26	Kantkari Ghrita	K. Kasa
67.	Charak Chikitsa 18/129	Kulathadi Ghrita	K. Kasa
68.	Charak Chikitsa 18/158-60	Dvipanchmooladi Ghrita	Kshayaj Kasa
69.	Charak Chikitsa 18/161-62	Guduchyadi Ghrita	Kshayaj Kasa
70.	Charak Chikitsa 18/163-64	Kasamardadi Ghrita	Kasa
71.	Charak Chikitsa 19/43	Chaangeri Ghrita	Atisara
72.	Charak Chikitsa 19/44	Chavyadi Ghrita	Atisara
73.	Charak Chikitsa 19/81	Darvyadi Ghrita	Atisara
74.	Charak Chikitsa 23/242-49	Amrit Ghrita	Visha
75.	Charak Chikitsa 26/23	Sthiradi Ghrita	Udavarta
76.	Charak Chikitsa 26/74	Shwadanshradi Ghrita	Ashmari
77.	Charak Chikitsa 26/163-65	Maayur Ghrita	Urdhwajatrugat Roga
78.	Charak Chikitsa 26/166-74	Mahamaayur Ghrita	Urdhwajatrugat Roga
79.	Charak Chikitsa 29/58-60	Paarushak Ghrita	Vatarakt
80.	Charak Chikitsa 29/61-70	Jeevaniya Ghrita	Vatarakt
81.	Charak Chikitsa 30/64-68	Brihat Shatavari Ghrita	Vrishya

Table No. 3: Ghrita Formulations in Sushrut Samhita⁴⁴

Sr No.	Reference	Formulation	Therapeutic Indication
1.	Sushrut Chikitsa 4/27	Tilvaka Ghrita	Vatvyadhi
2.	Sushrut Chikitsa 9/9	Tiktaka Ghrita	Kushtha
3.	Sushrut Chikitsa 9/29-33	Neel Ghrita	Kushtha
4.	Sushrut Chikitsa 9/34-38	Mahaneel Ghrita	Bhagandar, Arsha
5.	Sushrut Chikitsa 12/5	Dhanvantar Ghrita	Prameha
6.	Sushrut Chikitsa 14/14	Shatpala Ghrita	Udar Roga
7.	Sushrut Chikitsa 16/16-21	Karanjadi Ghrita	Vrana
8.	Sushrut Chikitsa 17/10-13	Gauryadi Ghrita	Pittaja Visarpa
9.	Sushrut Chikitsa 29/8	Rasayan Shatpaka Vacha Ghrita	Rasayana
10.	Sushrut Kalpa 6/8-11	Kalyanak Sarpi	Visha Chikitsa
11.	Sushrut Kalpa 6/12-13	Amrit Sarpi	Visha Chikitsa

Table No. 4: Ghrita Formulations in Ashtanga Hridaya⁴⁵

Sr no.	Reference	Formulation	Therapeutic Indication
1.	Ashtanga Hridaya chikitsa 1/90-91	Pippalyadi Ghrita	Jwara roga
2.	Ashtanga Hridaya chikitsa 1/157	Triphaladi Ghrita	Vishama Jwara
3.	Ashtanga Hridaya chikitsa 2/42-43	Vasa Ghrita	Raktpitta
4.	Ashtanga Hridaya chikitsa 3/57	Vidangadi Ghrita	Kasa
5.	Ashtanga Hridaya chikitsa 3/58	Punarnavadi Ghrita	Kasa
6.	Ashtanga Hridaya chikitsa 3/59-62	Kantkari Ghrita	Kasa
7.	Ashtanga Hridaya chikitsa 3/94-101	Aritprash Ghrita	Urakshat
8.	Ashtanga Hridaya chikitsa 3/102-105	Shwadanshtradi Ghrita	Urakshat
9.	Ashtanga Hridaya chikitsa 3/120-125	Nagabaladi Ghrita	Kshaya
10.	Ashtanga Hridaya chikitsa 3/162	Kasamardadi Ghrita	Kasa
11.	Ashtanga Hridaya chikitsa 3/164	Vasadi Ghrita	Kasa
12.	Ashtanga Hridaya chikitsa 3/165	Dadimadi Ghrita	Kasa
13.	Ashtanga Hridaya chikitsa 4/52-54	Tejovatyadi Ghrita	Shwasa
14.	Ashtanga Hridaya chikitsa 5/16-17	Jeevantyadi Ghrita	Rajyakshma
15.	Ashtanga Hridaya chikitsa 5/24	Rasnadi Ghrita	Rajyakshma
16.	Ashtanga Hridaya chikitsa 5/28-32	Eladi Ghrita	Rajyakshma
17.	Ashtanga Hridaya chikitsa 6/28	Shnthyadi pakwa Ghrita	Hidroga
18.	Ashtanga Hridaya chikitsa 6/29	Sauvarchaladi Ghrita	Hidroga
19.	Ashtanga Hridaya chikitsa 6/31	Pushkaradi Ghrita	Hidroga
20.	Ashtanga Hridaya chikitsa 8/74	Palashadi Ghrita	Arsha
21.	Ashtanga Hridaya chikitsa 8/75-76	Panchkoladi Ghrita	Arsha
22.	Ashtanga Hridaya chikitsa 8/77	Changeryadi Ghrita	Arsha
23.	Ashtanga Hridaya chikitsa 9/41	Pravahikaghna Ghrita	Atisaar
24.	Ashtanga Hridaya chikitsa 10/41-44	Chandanadi Ghrita	Grahani
25.	Ashtanga Hridaya chikitsa 11/22-24	Pittashmaribhedak Ghrita	Ashmari
26.	Ashtanga Hridaya chikitsa 10/25-26	Kaphaja Ashmaribhedak Ghrita	Ashmari
27.	Ashtanga Hridaya chikitsa 12/19-24	Pramehanashak Ghrita	Prameha
28.	Ashtanga Hridaya chikitsa 13/13-15	Vidradhyadinashak Ghrita	Vidradhi
29.	Ashtanga Hridaya chikitsa 14/11-12	Daadhik Ghrita	Gulma
30.	Ashtanga Hridaya chikitsa 14/21	Trayushanadi Ghrita	Gulma
31.	Ashtanga Hridaya chikitsa 14/22-26	Lashunadi Ghrita	Gulma
32.	Ashtanga Hridaya chikitsa 14/55-58	Neelini Ghrita	Gulma
33.	Ashtanga Hridaya chikitsa 14/80-82	Bhallatak Ghrita	Gulma
34.	Ashtanga Hridaya chikitsa 15/31	Snuhi Ghrita	Udar Rog
35.	Ashtanga Hridaya chikitsa 19/8-10	Mahatiktak Ghrita	Kushtha
36.	Ashtanga Hridaya chikitsa 19/18	Vajrak Ghrita	Kushtha
37.	Ashtanga Hridaya chikitsa 19/19-20	Mahavajrak Ghrita	Kushtha
38.	Ashtanga Hridaya chikitsa 19/21	Vairechanika Ghrita	Kushtha
39.	Ashtanga Hridaya chikitsa 21/57	Rasnadi Ghrita	Vatvyadhi

DISCUSSION

Ghrita possessing number of medicinal values, holds a primary position in Indian diet and culture, which is also evident in Vedic literature. Its use and health benefits were well-known to people. In present era, Ghrit (Clarified Butter) is known to be a source of many nutrients beneficial for health. In this article an attempt is made to analyse the nutraceutical value of Ghrita.

In Ayurveda, ghrita, commonly known as ghee, is considered a vital component of a balanced and holistic diet due to its potent nutraceutical properties. Its significance lies in its ability to promote overall well-being and support various bodily functions. According to Ayurvedic principles, ghrita is believed to balance the three doshas—Vata, Pitta, and Kapha—when consumed in moderation and in accordance with one's individual constitution.

From an Ayurvedic perspective, ghrita is known to enhance the digestive fire, or Agni, which is crucial for optimal digestion and nutrient absorption. It is considered a superior medium for carrying the therapeutic properties of herbs and enhancing their bioavailability. This quality has led to the use of ghrita as a vital ingredient in numerous Ayurvedic formulations and remedies, allowing for deeper penetration of medicinal properties into the body tissues and promoting overall health. Moreover, the presence of butyric acid in ghrita is believed to nourish the intestinal mucosa, promoting a healthy gut environment and improving digestive functions. This supports the concept of a balanced and robust digestive system as the foundation of good health in Ayurveda. Additionally, the abundance of fat-soluble vitamins in ghrita, such as A, D, E, and K, is thought to contribute to the maintenance of healthy skin, bone, and immune function, as well as aiding in the overall nourishment and longevity of the body.

Ayurvedic practitioners often recommend ghrita for its potential to promote mental clarity, memory retention, and cognitive functions, as it is believed to have a nourishing effect on the brain and nervous system. However, Ayurveda emphasizes the importance of consuming ghrita in moderation, considering individual prakriti (constitution) and vikriti (imbalances). Excessive consumption of ghrita may lead to an imbalance in the doshas, particularly Kapha, potentially resulting in issues such as weight gain and congestion. Therefore, Ayurvedic guidelines stress the significance of mindful consumption and proper dietary habits to harness the full benefits of ghrita without compromising one's overall health and well-being. Therefore, given its numerous advantages, Ghrita demonstrates its potential as a nutraceutical that needs further exploration.

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