

**TRADITIONAL AYURVEDIC NUTRACEUTICALS FOR THE  
PREVENTION AND MANAGEMENT OF LIFESTYLE DISEASES**

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**ABSTRACT****INTRODUCTION:**

Lifestyle disorders such as obesity, diabetes, cardiovascular diseases, malnutrition, and digestive disturbances are increasing due to irregular diet, stress, irregular sleep, addictions and sedentary routines. Ayurveda describes similar conditions under *Santarpanotha Vyadhis* (diseases caused by over-nutrition) and offers holistic management through *Ahara* (diet), *Vihara* (lifestyle), and *Rasayana* (rejuvenative therapy). Ayurveda describes many lifestyle-related disorders such as *Grahani* (SM 36, EB-7) and emphasizes the importance of proper diet (*Pathya–Apathya*) and specific *Ahara Kalpanas* that should be followed in this disease. Ayurvedic nutraceuticals derived from functional foods and herbs help balance metabolism and prevent disease progression.

**Methods:**

A review of classical Ayurvedic texts was carried out to compile formulations traditionally indicated in lifestyle disorders. Formulations prescribed for conditions such as Prameha

(Diabetes Mellitus), Medoroga (Dyslipidemia), Hridaya Roga (Cardiovascular Disorders), Grahani (irritable bowel syndrome), Shotha (Inflammatory Conditions), and Karshya (Under-nutrition) were identified. The selected preparations were categorized according to their Kalpana type—including Avaleha, Peya, Yavagu, Mantha, Saktu, Manda, Ksheerapaka, and Odana—along with their therapeutic indications.

**Results:**

Formulations such as *Panchakoladi Peya*, *Arjunadi Siddha Ksheer*, *Kushavaleha*, *Chavyadi Saktu*, *Varahniryuha Yavagu*, *Mudgadi Yusha*, and *Ashwagandha Pak* demonstrate diverse nutraceutical actions like *Deepana-Pachana* (enhancing digestion), *Medohara* (fat metabolism), *Balya* (strength-promoting), and *Rasayana* (rejuvenative) effects. Their bioactive constituents contribute to the management of metabolic, cardiovascular, and gastrointestinal disorders by regulating *Agni* and restoring *Dosha* balance.

**Discussion:**

These formulations exemplify the Ayurvedic approach of using functional foods as preventive and therapeutic measures. The *Ahara Kalpanas* described for diseases caused by over-nutrition and under-nutrition are similar to modern nutraceutical science, as they focus on correcting metabolic imbalance and nourishing body tissues through diet.

**Conclusion:**

Ayurvedic nutraceutical formulations can serve as safe, natural, and sustainable interventions for lifestyle disorders. Scientific validation and standardization will further enhance their role in global preventive healthcare.

**KEYWORDS:** *Rasayana*, *Ahara Kalpana*, *Santarpanottha Vyadhis*, Bioactive Compounds, Immunomodulatory, Antioxidants.

**INTRODUCTION**

Global interest in nutraceuticals has increased due to lifestyle-related health issues such as malnutrition, metabolic disorders, and degenerative diseases.

Nutraceutical, a term derived from ‘nutrition’ and ‘pharmaceutical’, refers to any product isolated from herbs, nutrients, specific diets, processed foods, and beverages used not only for nutritional but also for medicinal purposes. Nutraceuticals comprise many bioactive derivatives from edible sources such as anti-oxidants, phytochemicals, fatty acids, amino acids, prebiotics and probiotics.(1)

They contain bioactive substances and may be formulated in the form of capsules, tablets, powders, granules, liquids, or gummies.

Nutraceuticals are defined under the Food Safety and Standards (Health Supplements, Nutraceuticals, Food for Special Dietary Use, Food for Special Medical Purpose, Functional Food, and Novel Food) Regulations, 2016.(2)

The health supplement or nutraceutical or food for special dietary use or food for special medical purpose may contain the ingredient as specified in Schedule IV, formulated either alone or in combination of ingredients or botanicals or their extracts either in unprocessed or in approved processed forms, formulated in a regular or conventional food format such as liquid or syrup, suspension or powder, granule, tablet or capsule or any other format approved by the Food Authority.(2)

Ayurveda emphasizes the concept of *Ahara (diet)* as one of the three pillars of life (*Trayopasthambha*)(3), highlighting its direct impact on health, strength, immunity (*Ojas*), and longevity. Ayurvedic classics such as *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* describe numerous *Ahara Kalpanas* (dietary formulations) and *Rasayana yogas* that serve both nutritional and medicinal roles-precursors to today's nutraceuticals. Preparations like *Ghrita* (medicated ghee), *Avaleha* (herbal jam), *Mantha*, *Panaka*, *Leha*, *Rasayana Kalpana*, *Ksheerapaka*, and *Yavagu* exemplify functional foods that nourish, rejuvenate, and prevent diseases. Ayurveda quotes quality of food articles that should be used regularly-

“तच्च नित्यं प्रयुञ्जीत स्वास्थ्य येनानुवर्तते | अजातानां विकाराणामनुत्पत्तिकरं च यत् || (4)

It means food articles that maintains our health and doesn't cause any diseases that is not yet exists in our body should be used regularly. This article aims to compile and enlist nutraceutical recipes useful in lifestyle disorders mentioned in classical Ayurvedic texts, along with their ingredients and potential health benefits, thereby providing insight into the ancient wisdom of functional nutrition and its relevance to contemporary health science.

### **Ayurvedas insights into nutraceuticals**

Ayurveda, the ancient science of life, views food (*Ahara*) as the primary determinant of health, strength, and longevity. Classical texts emphasize that “*Ahara* is the foremost medicine” *Acharya Kashyap* in *Khila Sthana* quotes “भेषजेनोपपन्नोऽपि निराहारो न शक्यते तस्मान्निषग्भिराहारो महाभेषज्यमुच्यते” | (5)

underscoring that a well-balanced diet can prevent and cure diseases. This holistic perspective closely aligns with the modern concept of nutraceuticals, where specific foods or food-derived compounds are recognized for their therapeutic potential. Ayurveda introduces several concepts that correspond with nutraceutical science:

Ayurveda emphasizes *Ahara Kalpana* (dietary preparations) like *Yavagu* and *Ksheerapaka* for nourishment, and *Rasayana* formulations such as *Chyavanprasha* which is an *avaleha* for vitality and longevity. It advocates *Pathya–Apathya* (personalized diet) based on *Prakriti* and season, and evaluates food through *Rasa*, *Guna*, *Virya*, and *Vipaka*, reflecting principles of modern nutritional science.

Ayurvedic classics describe a variety of *Aahara Kalpanas*, each of these *kalpanas* delivers specific nutritional and therapeutic effects tailored to *doshic* imbalance and disease condition. For instance, *Ksheerapaka* combines the nutritional value of milk with the medicinal potency of herbs, enhancing absorption and palatability. For *Aushadhi dravyas* that possess *Ushna*, *Tikshna*, and *Katu rasa* properties, preparing them in *Ksheerapaka* form is beneficial because the qualities of milk help counteract and balance these intense *doshic* properties of the *dravyas*(6). Similarly, *Avaleha* formulations such as *Chyavanprasha* act as *Rasayana*—rejuvenating preparations that promote immunity and longevity.(7)

### **Common lifestyle disorders mentioned in Ayurveda**

*Grahani (SM36(EB-7))*- *Grahani Roga* is a *tridoshaja* (involving all three doshas) disorder of the digestive system, primarily resulting from the vitiation of *Pachakagni(DB)*, *Saman Vayu (AAC)*, and *Kledaka Kapha (ACA)*. It is characterized by symptoms such as alternating constipation and diarrhoea (*muhurbaddha–muhurdrava malapravrtti*), improperly digested stools (*amayukta mala*), abdominal pain (*udara-shoola*), gurgling sounds in the intestines (*antrakujana*), loss of appetite (*arochaka*), and fatigue(*klama*).(8) everyone is chasing a luxurious lifestyle. Because of busy schedules, people's eating habits, meal timings, and overall lifestyles have changed drastically. Along with this, constant mental stress has become a part of daily life. All these factors together disturb the digestive system and eventually lead to various health problems

Metabolic disorders- Metabolic syndrome can be considered as a *Medopradoshaja Vikara*. A disorder arising from the disturbance of *Medo Dhatu* (adipose tissue)(9), since vitiated *Meda* is primary tissue implicated in its development.(10) In the context of metabolic syndrome, excessive accumulation of *Medas* (fat tissue) beneath the skin leads to obesity. In the same way, when unprocessed or abnormal fat (*Abaddha Meda*) builds up in the bladder region

(*Basti*), it gives rise to the symptoms of *Prameha*(*SM8D (EF-2)*).(11) Moreover, when Meda (fat) gets abnormally deposited in the walls of arteries, it causes thickening and hardening of the vessels (*Dhamanipratichaya* or arteriosclerosis), which leads to high blood pressure. Likewise, the accumulation of this abnormal fat within the blood-carrying channels (*Rakta Vaha Srotas*) increases unhealthy lipid levels, resulting in hypercholesterolemia.(12)

*Santarpanajanya vyadhis* are lifestyle disorders caused by over-nutrition, excessive intake of heavy and calorie-rich foods, sedentary habits, and lack of exercise, leading to diseases like obesity, diabetes, and cardiovascular disorders.

*Apatarpanajanya vyadhis* are lifestyle disorders caused by under-nutrition, irregular eating, excessive fasting, stress, and over-exertion, resulting in conditions like malnutrition, anemia, fatigue, and degenerative disorders

*Karshya* (Under-nutrition / Malnutrition)- *Karshya* is described as an emaciated or undernourished state resulting from *Agnimandya* (weak digestion) and *Dhatu Kshaya* (tissue depletion). It occurs due to inadequate intake of food, irregular dietary habits, overexertion, chronic illness, or psychological stress. Vitiating of *Vata dosha* is predominant, causing depletion of muscle and fat tissues (*Mamsa-Meda Kshaya*). Clinically, it presents with leanness, weakness, fatigue, and reduced immunity. It is comparable to conditions like malnutrition or cachexia in modern medicine.

### Ayurvedic Nutraceuticals for Managing Lifestyle Disorders

**Table:1 Ayurvedic Nutraceuticals in *Hridaya roga*. (heart pain disorder)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Arjunadi Sidhha Ksheer</i> (13)	<i>Ksheerapaka</i>	<i>Chakradatta</i>	<i>Pittaja Hridaya Roga</i>
2.	<i>Godhumarjun Paka</i> (13)	<i>Avaleha</i>	<i>Chakradatta</i>	<i>Hridaya Roga</i>
3.	<i>Dadima-Amalaki Yusha</i> (15)	<i>Yusha</i>	<i>Sushruta Samhita Sutra Sthana</i>	<i>Medoroga, Hridroga</i>
4.	<i>Salam Pak</i> (17)	<i>Avaleha</i>	<i>Yogratnakar</i>	<i>Prameha, Hriday Roga</i>

**Table:2 Ayurvedic Nutraceuticals in *Prameha*. (Polyuria disorder)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Lohitchandanadi Ksheera</i>	<i>Ksheerapaka</i>	<i>Bhaishajya Ratnavali</i>	<i>Prameha</i>
2.	<i>Kushavaleha</i> (13)	<i>Avaleha</i>	<i>Chakradatta</i>	<i>Prameha</i>
3.	<i>Vishkir/Pratuda/Vihang Mamsarasa</i> (14)	<i>Mamsarasa</i>	<i>Charaka Samhita Chikitsasthana 6</i>	<i>Prameha</i>

4.	<i>Vatyamanda</i>	<i>Manda</i>	<i>Charaka Samhita Chikitsasthana 6</i>	<i>Prameha</i>
5.	<i>Mudgadi Yusha (14)</i>	<i>Yusha</i>	<i>Charaka Samhita Chikitsasthana 6</i>	<i>Prameha</i>
6.	<i>Shalyodana (14)</i>	<i>Odana</i>	<i>Charaka Samhita Chikitsasthana 6</i>	<i>Prameha</i>
7.	<i>Udakakanda Yavagu(15)</i>	<i>Yavagu</i>	<i>Sushruta Samhita Chikitsa Sthana 11 Pg 77</i>	<i>Prameha</i>
8.	<i>Priyangwadi Avaleha(15)</i>	<i>Avaleha</i>	<i>Sushruta Samhita Chikitsa Sthana 11 Pg 77</i>	<i>Prameha</i>
9.	<i>Shringatakadi Avaleha(15)</i>	<i>Avaleha</i>	<i>Sushruta Samhita Chikitsa Sthana 11 Pg 77</i>	<i>Prameha</i>
10.	<i>Ashvagandha Pak(17)</i>	<i>Avaleha</i>	<i>Yogaratanakar</i>	<i>Prameha</i>
11.	<i>Pug Pak(17)</i>	<i>Avaleha</i>	<i>Yogratnakar</i>	<i>Prameha</i>
12.	<i>Salam Pak(17)</i>	<i>Avaleha</i>	<i>Yogratnakar</i>	<i>Prameha, Hriday Roga</i>
13.	<i>Draksha Pak(17)</i>	<i>Avaleha</i>	<i>Yogratnakar</i>	<i>Prameha</i>

**Table: 3 Ayurvedic Nutraceuticals in *apatarpana* and *apatarpanajanya roga* (Malnutrition disorder.)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Varahniryuha Sidhha Yavagu(3)</i>	<i>Yavagu</i>	<i>Charaka Samhita Sutrasthana 2</i>	<i>Pushtikaraka</i>
2.	<i>Santarpana Mantha(3)</i>	<i>Mantha</i>	<i>Charaka Samhita Sutrasthana 23</i>	<i>Apatarpana Janya Roga</i>
3.	<i>Panjeerakavleha (16)</i>	<i>Karshya</i>	<i>Gada Nigraha Lehadhikarp304</i>	<i>Karshya</i>
4.	<i>Kusmanda avaleha (19)</i>	<i>Avaleha</i>	<i>Sharangdhar Samhita</i>	<i>Brihnan</i>

**Table: 4 Ayurvedic Nutraceuticals in *medoroga*. (Obesity disorder)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Chavyadi Saktu (13)</i>	<i>Saktu</i>	<i>Chakradatta</i>	<i>Medoroga</i>
2.	<i>Vyoshadi Saktu (13)</i>	<i>Saktu</i>	<i>Chakradatta</i>	<i>Medoroga</i>
3.	<i>Stholyahari Peya(13)</i>	<i>Peya</i>	<i>Chakradatta</i>	<i>Medoroga</i>
4.	<i>Gavedhuka Yavagu(3)</i>	<i>Yavagu</i>	<i>Charaka Samhita Sutrasthana 2</i>	<i>Karshana</i>
5.	<i>Mulaka Yusha(15)</i>	<i>Yusha</i>	<i>Sushruta Samhita Sutra Sthana 46 Pg 274</i>	<i>Medoroga</i>
6.	<i>Patolnimba Yusha(15)</i>	<i>Yusha</i>	<i>Sushruta Samhita Sutra Sthana 46 Pg 274</i>	<i>Medoroga</i>
7.	<i>Dadima-Amalaki Yusha(15)</i>	<i>Yusha</i>	<i>Sushruta Samhita Sutra Sthana 46 Pg 274</i>	<i>Medoroga, Hridroga</i>

8.	<i>Tryushanadi Mantha(3)</i>	<i>Mantha</i>	<i>Charaka Samhita Sutrasthana 23</i>	<i>Santarpanjanit Roga</i>
9.	<i>Vyoshadya Saktu (3)</i>	<i>Saktu</i>	<i>Charaka Samhita Sutrasthana 23</i>	<i>Santarpanjanit Roga</i>

**Table: 5 Ayurvedic Nutraceuticals in *Grahani*. (Malabsorption disorder)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Panchakoladi Peya (14)</i>	<i>Peya</i>	<i>Charaka Samhita Chikitsasthana 15</i>	<i>Grahani</i>
2.	<i>Yavagu Panchaka (14)</i>	<i>Yavagu</i>	<i>Charaka Samhita Chikitsasthana 15</i>	<i>Grahani</i>
3.	<i>Panchakoladi Yusha (14)</i>	<i>Yusha</i>	<i>Charaka Samhita Chikitsasthana 15</i>	<i>Grahani</i>
4.	<i>Palashadi Yavagu (14)</i>	<i>Yavagu</i>	<i>Charaka Samhita Chikitsasthana 15</i>	<i>Grahani</i>
5.	<i>Amra Pak(18)</i>	<i>Avaleha</i>	<i>Bhavprakash</i>	<i>Grahani</i>
6.	<i>Amradi yavagu(19)</i>	<i>Yavagu</i>	<i>Sharangdhar Samhita</i>	<i>Grahani</i>

**Table: 6 Ayurvedic Nutraceuticals in *Shoth*. (Oedema)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Jeevantyadi Yavagu(14)</i>	<i>Yavagu</i>	<i>Charaka Samhita Chikitsasthana 12</i>	<i>Shoth</i>
2.	<i>Panchakola Yavagu (14)</i>	<i>Yavagu</i>	<i>Charaka Samhita Chikitsasthana 12</i>	<i>Shoth</i>

**Table: 7 Ayurvedic Nutraceuticals in *Kasa-Svasa*. (Cough & Dyspnoea disorder)**

S.N.	Formulation Name	Type of Kalpana	Source Text Reference	Therapeutic Nutraceutical Role
1.	<i>Kantakaryavleha (19)</i>	<i>Avaleha</i>	<i>Sharangdhar Samhita</i>	<i>Kasa-svasa</i>
2.	<i>Agastya-haritaki avaleha (19)</i>	<i>Avaleha</i>	<i>Sharangdhar Samhita</i>	<i>Svasa</i>

**Table: 8 Classical Ayurvedic Formulations and Their Ingredients.**

Formulation Name	Ingredients
<i>Arjunadi Sidhha Ksheer(13)</i>	<i>Arjuna (Terminalia arjuna), Ksheera (Milk), Jala (Water)</i>
<i>Godhumarjun Paka(13)</i>	<i>Godhuma (Wheat), Arjuna (T. arjuna), Ghee, Sugar, goat milk, honey</i>
<i>Lohitchandanadi Ksheera</i>	<i>Rakta Chandana (Pterocarpus santalinus, stem), Mulethi (Glycyrrhiza glabra, root),</i>

	<i>Draksha (Vitis vinifera, fruit), Godugdha</i>
<i>Kushavaleha (13)</i>	<i>Viran (Vetiveria zizanioides, root) Kush (Desmostachya bipinnata, whole plant), Kaas (Saccharum spontaneum, root), krishna ikshu (Saccharum officinarum, root), Khagad (Saccharum sara, root), Mulethi (Glycyrrhiza glabra, root), Karkati (Cucumis sativus, seeds), Karkaru (Cucurbita pepo, seeds), Trapusha (Cucumis sativus- seeds) Vanshlochan (Bambusa arundinacea, exudate), Amla (Emblica officinalis, fruit), Tejpatra (Cinnamomum tamala, leaves), Ela (Elettaria cardamomum, fruit), Twak (Cinnamomum verum, chaal), Nagkeshar (Mesua ferrea, stamen), Varun (Crataeva nurvala, bark ), Guduchi (Tinospora cordifolia, stem), Phool Priyangu (Callicarpa macrophylla, flower), sugar</i>
<i>Chavyadi Saktu (13)</i>	<i>Chavya (Piper retrofractum- Fruit), jeera (Cuminum cyminum-Seed), shunthi (Zingiber officinale-Rhizome), marich (Piper nigrum- fruit), hing (Ferula asafoetida- resin), sovarchal lavana, chitrak (Plumbago zeylanica), mastu (curd water), saktu</i>
<i>Vyoshadi Saktu (13)</i>	<i>Shunthi (Zingiber officinale, rhizome), Marich (Piper nigrum, fruit), Pippali (Piper longum, fruit), Vayavidanga (Embelia ribes, fruit), Sahijan (Moringa oleifera, stem bark), Haritaki (Terminalia chebula, pericarp), Bibhitak (Terminalia bellirica, pericarp), Amalaki (Emblica officinalis-fruit), Kutki (Picrorhiza kurroa, rhizome), Kantakari (Solanum surattense, fruit), Brihati (Solanum indicum, fruit), Haladi (Curcuma longa, rhizome), Daruhaldi (Berberis aristata, stem bark), Patha (Cissampelos pareira, root), Atis (Aconitum heterophyllum, root), Sarivan (Hemidesmus indicus, root), Hing (Ferula asafoetida, resin), Kebukamool (Costus speciosus, root), Ajwain (Trachyspermum ammi, seed), Dhaniya (Coriandrum sativum, seed),</i>

	<i>Chitrak (Plumbago zeylanica, root), sovarchal lavana, Jeera (Cuminum cyminum-seed), and Haubair (Juniperus communis, seed), sesame oil, honey, ghrita</i>
<i>Stholyahari Peya(13)verse 16</i>	<i>Badri (Zizyphus jujuba linn-leaves), Kanji</i>
<i>Varahniryuha Sidhha Yavagu(3) verse 25</i>	<i>Pork soup</i>
<i>Gavedhuka Yavagu(3)</i>	<i>Gavedhuka (Coix lacryma-jobi)</i>
<i>Vishkir/Pratuda/Vihanga Mamsarasa (14) verse 19</i>	<i>Vishkira (Grain-eating birds), Pratuda (Pecking birds), Vihanga (Flying birds)</i>
<i>Vatyamanda (14) verse 19</i>	<i>Roasted barley (Hordeum vulgare Linn.)</i>
<i>Mudgadi Yusha (14) verse 20</i>	<i>Mudga (Vigna radiata) etc. pulses</i>
<i>Shalyodana (14) verse 21</i>	<i>Danti (Baliospermum montanum), Ingudi (Balanites aegyptiaca), Atis (Aconitum heterophyllum), Sarshap (Brassica campestris), Shali (Oryza sativa)</i>
<i>Jeevantyadi Yavagu(14) verse 60</i>	<i>Jivanti (Leptadenia reticulata), Jeera (Cuminum cyminum-root), Kachur (Curcuma zedoaria-root), Pushkarmula (Inula racemosa-root), Karvi (Strobilanthes callosus-root), Chitrak (Plumbago zeylanica-root), Bilva (Aegle marmelos-fruit pulp), Yava (Hordeum vulgare-kshar)</i>
<i>Panchakola Yavagu (14)</i>	<i>Pippali (Piper longum-fruit), Pippalimoola (Piper longum-root), Chavya (Piper retrofractum-root), Chitraka (Plumbago zeylanica-root), Shunthi (Zingiber officinale-rhizome)</i>
<i>Panchakoladi Peya (14)</i>	<i>Pippali (Piper longum-fruit), Pippalimoola (root of Piper longum), Chavya (Piper retrofractum), Chitraka (Plumbago zeylanica), Shunthi (Zingiber officinale)</i>
<i>Yavagu Panchaka (14)</i>	<i>1. Chavya (Piper retrofractum-root), Twak (Cinnamomum zeylanicum- bark), Pippalimoola (Piper longum-root), Dhataki (Woodfordia fruticose-flower), Shunthi (Zingiber officinale – dried rhizome), Maricha (Piper nigrum – fruit), Pippali (Piper longum – fruit); Chitrak (Plumbago zeylanica-root), Kapithha (Feronia limonia-fruit pulp), Bilva (Aegle marmelos-unripe fruit)</i>

	<p><i>Patha (Cissampelos pareira-root),</i>  <i>Mochrasa (Bombax malabaricum-gum/exudate),</i>  <i>Gajapippali (Scindapsus officinali-fruit),</i>  <i>Pashanbhed (Bergenia ligulate-root),</i>  <i>Jeera (Cuminum cyminum-seed),</i>  <i>goghrita</i>                  2. Above mentioned drugs+ <i>Kapithha (Feronia limonia-fruit juice)</i>                  3. Above mentioned drugs+ <i>Changeri (Oxalis corniculata Linn.- fruit juice)</i>                  4. Above mentioned drugs+ <i>Vrikshamla (Garcinia indica- fruit juice)</i>                  5. Above mentioned drugs + <i>Dadima (Punica granatum Linn.-fruit juice)</i></p>
<i>Panchakoladi Yusha (14)</i>	<p><i>Pippali (Piper longum-fruit),</i>  <i>Pippalimoola (Piper longum-root),</i>  <i>Chavya (Piper retrofractum-root),</i>  <i>Chitraka (Plumbago zeylanica-root),</i>  <i>Shunthi (Zingiber officinale-rhizome),</i>  <i>Mudga (Vigna radiata)</i></p>
<i>Palashadi Yavagu (14)</i>	<p><i>Palash (Butea monosperma – root),</i>  <i>Chitrak (Plumbago zeylanica – root),</i>  <i>Chavya (Piper retrofractum – fruit),</i>  <i>Bijora Nimbu (Citrus medica – fruit juice),</i>  <i>Haritaki (Terminalia chebula – fruit),</i>  <i>Pippali (Piper longum – fruit),</i>  <i>Pippalimula (Piper longum – root),</i>  <i>Patha (Cissampelos pareira – root),</i>  <i>Shunthi (Zingiber officinale – dried rhizome),</i>  <i>Dhanyak (Coriandrum sativum – seed),</i>  <i>Shali (Oryza sativa – grain)</i></p>
<i>Mulaka Yusha(15) verse 376</i>	<i>Mulaka (Raphanus sativus – root)</i>
<i>Patolnimba Yusha(15) verse375</i>	<p><i>Patola (Trichosanthes dioica – leaf/fruit),</i>  <i>Nimba (Azadirachta indica – leaf/bark)</i></p>
<i>Dadima-Amalaki Yusha(15) verse378</i>	<p><i>Dadima (Punica granatum – seed),</i>  <i>Amalaki (Emblica officinale– fruit)</i></p>
<i>Udakakanda Yavagu(15)</i>	<p><i>Priyangu (Callicarpa macrophylla – flower),</i>  <i>Anantamul (Hemidesmus indicus – root),</i>  <i>Juhi (Jasminum auriculatum – flower),</i>  <i>Bhargi (Clerodendrum serratum – root),</i>  <i>Trayantika / Mehndi (Lawsonia inermis – leaf),</i>  <i>Lohitika / Majistha (Rubia cordifolia – root),</i>  <i>Patha (Cissampelos pareira – root),</i>  <i>Anar chhilka / Dadima (Punica granatum – fruit rind),</i>  <i>Shalparni (Desmodium gangeticum – root),</i>  <i>Kamal (Nelumbo nucifera – flower),</i>  <i>Tunga / Nariyal (Cocos nucifera – endosperm),</i>  <i>Nagkesar (Mesua ferrea – stamen),</i>  <i>Dhay ke phool (Woodfordia fruticosa – flower),</i>  <i>Maulsiri (Mimusops elengi – bark),</i></p>

	<p><i>Semal (Bombax ceiba – bark),</i>  <i>Shriveshtaka / Sarala / Viroja (Pinus roxburghii – resin),</i>  <i>Mochrasa (Bombax ceiba – gum)</i>  <i>Shringataka (Trapa natans – fruit),</i>  <i>Giloy / Guduchi (Tinospora cordifolia – stem),</i>  <i>Kamal ke beej (Nelumbo nucifera – seed),</i>  <i>Kamal ki jad (Nelumbo nucifera – rhizome),</i>  <i>Kamalnal (Nelumbo nucifera – petiole),</i>  <i>Kash (Saccharum spontaneum – root),</i>  <i>Kasheru (Cyperus scariosus – root),</i>  <i>Mulethi (Glycyrrhiza glabra – root),</i>  <i>Aam (Mangifera indica – bark),</i>  <i>Jamun (Syzygium cumini – bark),</i>  <i>Vijaysar (Pterocarpus marsupium – heartwood),</i>  <i>Tinisha (Oroxylum indicum – bark),</i>  <i>Arjun (Terminalia arjuna – bark),</i>  <i>Aralu (Ailanthus excelsa – bark),</i>  <i>Lodhra (Symplocos racemosa – bark),</i>  <i>Bhilawa (Semecarpus anacardium – fruit),</i>  <i>Palash (Butea monosperma – bark),</i>  <i>Charmivriksha (Cassia fistula – bark),</i>  <i>Aparajita (Clitoria ternatea – root),</i>  <i>Sheetashiva (Saraca asoca – bark),</i>  <i>Jalavet (Alstonia scholaris – bark),</i>  <i>Anar (Punica granatum – fruit rind),</i>  <i>Ajkarna / Sarjak / Shalabhed (Vateria indica – bark),</i>  <i>Harivriksha / Khirni (Manilkara hexandra – bark),</i>  <i>Gopaghonta / Jhadber (Ziziphus nummularia – fruit),</i>  <i>Vikankata / Yajnavriksha Kantaki (Flacourtia indica – bark).</i></p>
<p><i>Priyangwadi Avaleha(15)</i></p>	<p><i>Priyangu (Callicarpa macrophylla – flower),</i>  <i>Anantamul (Hemidesmus indicus – root),</i>  <i>Juhi (Jasminum auriculatum – flower),</i>  <i>Bhargi (Clerodendrum serratum – root),</i>  <i>Trayantika / Mehndi (Lawsonia inermis – leaf),</i>  <i>Lohitika / Majistha (Rubia cordifolia – root),</i>  <i>Patha (Cissampelos pareira – root),</i>  <i>Dadima twaka (Punica granatum – fruit rind),</i>  <i>Shalparni (Desmodium gangeticum – root),</i>  <i>Kamal (Nelumbo nucifera – flower),</i>  <i>Tunga / Nariyal (Cocos nucifera – endosperm),</i>  <i>Nagkesar (Mesua ferrea – stamen),</i>  <i>Dhay ke phool (Woodfordia fruticosa – flower),</i>  <i>Maulsiri (Mimusops elengi – bark),</i>  <i>Semal (Bombax ceiba – bark),</i>  <i>Shriveshtaka / Sarala / Viroja (Pinus roxburghii – resin),</i>  <i>Mochrasa (Bombax ceiba – gum)</i></p>
<p><i>Shringatakadi Avaleha(15)</i></p>	<p><i>Shringataka (Trapa natans – fruit)</i></p>

	<p><i>Giloy / Guduchi (Tinospora cordifolia – stem)</i>  <i>Kamal ke beej (Nelumbo nucifera – seed)</i>  <i>Kamal ki jad (Nelumbo nucifera – rhizome)</i>  <i>Kamalnal (Nelumbo nucifera – petiole)</i>  <i>Kash (Saccharum spontaneum – root)</i>  <i>Kasheru (Cyperus scariosus – root)</i>  <i>Mulethi (Glycyrrhiza glabra – root)</i>  <i>Aam (Mangifera indica – bark)</i>  <i>Jamun (Syzygium cumini – bark)</i>  <i>Vijaysar (Pterocarpus marsupium – heartwood)</i>  <i>Tinisha (Oroxylum indicum – bark)</i>  <i>Arjun (Terminalia arjuna – bark)</i>  <i>Aralu (Ailanthus excelsa – bark)</i>  <i>Lodhr (Symplocos racemosa – bark)</i>  <i>Bhilawa (Semecarpus anacardium – fruit)</i>  <i>Palash (Butea monosperma – bark)</i>  <i>Charmivriksha (Cassia fistula – bark)</i>  <i>Aparajita (Clitoria ternatea – root)</i>  <i>Sheetashiva (Saraca asoca – bark)</i>  <i>Jalavet (Alstonia scholaris – bark)</i>  <i>Anar (Punica granatum – fruit rind)</i>  <i>Ajkarna / Sarjak / Shalabhed (Vateria indica – bark)</i>  <i>Harivriksha / Khirni (Manilkara hexandra – bark)</i>  <i>Gopaghonta / Jhadber (Ziziphus nummularia – fruit)</i>  <i>Vikankata / Yajnavriksha Kantaki (Flacourtia indica – bark)</i></p>
Tryushanadi Mantha(3)	<p><i>Pippali (Piper longum – fruit)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Shunthi (Zingiber officinale – rhizome)</i>  <i>Amla (Phyllanthus emblica – fruit)</i>  <i>Haritaki (Terminalia chebula – fruit)</i>  <i>Bibhitaki (Terminalia bellirica – fruit)</i>  <i>Vidanga (Embelia ribes – fruit)</i>  <i>Ajmoda (Apium graveolens – seed)</i></p>
Vyoshadya Saktu (3)	<p><i>Shunthi (Zingiber officinale – rhizome)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Vidanga (Embelia ribes – fruit)</i>  <i>Sahjan (Moringa oleifera – bark)</i>  <i>Amla (Phyllanthus emblica – fruit)</i>  <i>Haritaki (Terminalia chebula – fruit)</i>  <i>Bibhitaki (Terminalia bellirica – fruit)</i>  <i>Katuki (Picrorhiza kurroa – rhizome)</i>  <i>Bhata kataiya / Ringni (Solanum xanthocarpum – whole plant)</i>  <i>Banbhanta (Solanum indicum – whole plant)</i>  <i>Haldi (Curcuma longa – rhizome)</i>  <i>Daruhaldi (Berberis aristata – stem)</i></p>

	<p><i>Patha (Cissampelos pareira – root)</i>  <i>Atis (Aconitum heterophyllum – tuberous root)</i>  <i>Sariva (Hemidesmus indicus – root)</i>  <i>Hing (Ferula asafoetida – oleo-gum-resin)</i>  <i>Karemu saag mool (Clerodendrum serratum – root)</i>  <i>Ajwain (Trachyspermum ammi – seed)</i>  <i>Dhaniya (Coriandrum sativum – seed)</i>  <i>Chitrak (Plumbago zeylanica – root)</i>  <i>Saindhava lavana / Rock salt (Halite – mineral salt)</i>  <i>Shweta jeerak (Cuminum cyminum – seed)</i>  <i>Hauber (Juniperus communis – seed)</i></p>
<i>Santarpana Mantha(3)</i>	<p><i>Kharjur (Phoenix dactylifera – fruit)</i>  <i>Munakka (Vitis vinifera – dried fruit)</i>  <i>Vrikshamla (Garcinia indica – fruit rind)</i>  <i>Imli (Tamarindus indica – fruit pulp)</i>  <i>Khatta Anardana (Punica granatum – dried seed coat)</i>  <i>Phalasa (Grewia asiatica – fruit)</i>  <i>Amla (Phyllanthus emblica – fruit)</i></p>
<i>Panjeerakavleha (16)</i>	<p><i>Kustumbari (Coriandrum sativum – seed)</i>  <i>Ajmoda (Apium graveolens – seed)</i>  <i>Marich (Piper nigrum – seed)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Ajwain (Trachyspermum ammi – seed)</i>  <i>Krishna Jeeraka (Carum carvi – seed)</i>  <i>Chavya (Piper retrofractum – root)</i>  <i>Haritaki (Terminalia chebula – fruit)</i>  <i>Krishna Nishoth (Operculina turpethum – root)</i>  <i>Vidanga (Embelia ribes – fruit)</i>  <i>Hauber (Juniperus communis – seed)</i>  <i>Karvi (Carum carvi – seed)</i>  <i>Saptala (Acacia concinna – root)</i>  <i>Shunthi (Zingiber officinale – rhizome)</i>  <i>Durva / Vandak (Cynodon dactylon – root)</i>  <i>Nagkeshar (Mesua ferrea – fruit)</i>  <i>Saunf (Foeniculum vulgare – seed)</i>  <i>Methi (Trigonella foenum-graecum – seed)</i>  <i>Kasheru (Scirpus grossus – rhizome)</i>  <i>Dalchini (Cinnamomum verum – bark)</i>  <i>Ela (Elettaria cardamomum – fruit)</i>  <i>Tejpatra (Cinnamomum tamala – leaf)</i>  <i>Godugdha (Cow's milk)</i>  <i>Gud (Jaggery)</i>  <i>Goghrita (Cow's ghee)</i></p>
<i>Ashvagandha Pak(17)</i>	<p><i>Ashvagandha (Withania somnifera – root)</i>  <i>Jayphala (Myristica fragrans – seed)</i>  <i>Kesar (Crocus sativus – stigma)</i>  <i>Vanshlochan (Bambusa arundinacea – exudate)</i>  <i>Mocharasa (Bombax malabaricum – gum/exudate)</i>  <i>Jatamansi (Nardostachys jatamansi – root/rhizome)</i></p>

	<p><i>Chandan (Santalum album – heartwood)</i>  <i>Khadir Sara (Acacia catechu – heartwood extract)</i>  <i>Javitri (Myristica fragrans – aril)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Pippalimula (Piper longum – root)</i>  <i>Lavang (Syzygium aromaticum – flower bud)</i>  <i>Kankola (Piper cubeba – fruit)</i>  <i>Patala (Stereospermum suaveolens – bark)</i>  <i>Akhrot (Juglans regia – kernel)</i>  <i>Bhallataka (Semecarpus anacardium – fruit)</i>  <i>Shringataka (Trapa natans – fruit)</i>  <i>Gokshur (Tribulus terrestris – fruit)</i>  <i>Rasasindur</i>  <i>Naga Bhasma (Purified lead calx)</i>  <i>Vanga Bhasma (Purified tin calx)</i>  <i>Abhrak Bhasma (Purified mica calx)</i>  <i>Lauha Bhasma (Purified iron calx)</i>  <i>Sharkara (Saccharum officinarum – crystallized sugar)</i></p>
<p><i>Pug Pak(17)</i></p>	<p><i>Nagkeshar (Mesua ferrea – stamen)</i>  <i>Nagarmotha (Cyperus rotundus – rhizome)</i>  <i>Chandan (Santalum album – heartwood)</i>  <i>Shunthi (Zingiber officinale – dried rhizome)</i>  <i>Maricha (Piper nigrum – fruit)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Amalaki (Emblica officinalis – fruit)</i>  <i>Chironji (Buchanania lanzan – seed)</i>  <i>Katu / Kutki (Picrorhiza kurroa – rhizome)</i>  <i>Lajjalu (Mimosa pudica – root or whole plant)</i>  <i>Twak (Cinnamomum zeylanicum – bark)</i>  <i>Elaichi (Elettaria cardamomum – fruit)</i>  <i>Tejpatra (Cinnamomum tamala – leaf)</i>  <i>Shweta Jeera (Cuminum cyminum – seed)</i>  <i>Krishna Jeera (Carum carvi – seed)</i>  <i>Shringataka (Trapa natans – fruit)</i>  <i>Vanshlochan (Bambusa arundinacea – exudate)</i>  <i>Jaiphal (Myristica fragrans – seed)</i>  <i>Javitri (Myristica fragrans – aril)</i>  <i>Lavang (Syzygium aromaticum – flower bud)</i>  <i>Dhanyak (Coriandrum sativum – seed)</i>  <i>Brihad Ela (Amomum subulatum – fruit)</i>  <i>Poog / Supari (Areca catechu – nut)</i>  <i>Godugdha (Cow’s milk)</i>  <i>Amalaki (Emblica officinalis – fruit)</i>  <i>Shatavari (Asparagus racemosus – root)</i></p>
<p><i>Salam Pak(17)</i></p>	<p><i>Salam Mishri (Orchis mascula – tuber)</i>  <i>Godugdha (Cow’s milk)</i>  <i>Twak (Cinnamomum zeylanicum – bark)</i></p>

	<p><i>Ela (Elettaria cardamomum – fruit)</i>  <i>Tejpatra (Cinnamomum tamala – leaf)</i>  <i>Nagkesar (Mesua ferrea – stamen)</i>  <i>Lavang (Syzygium aromaticum – flower bud)</i>  <i>Jaiphal (Myristica fragrans – seed)</i>  <i>Nagarmotha (Cyperus rotundus – rhizome)</i>  <i>Vanshlochan (Bambusa arundinacea – exudate)</i>  <i>Dhanyak (Coriandrum sativum – seed)</i>  <i>Shunthi (Zingiber officinale – dried rhizome)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Ashwagandha (Withania somnifera – root)</i>  <i>Haritaki (Terminalia chebula – fruit)</i>  <i>Lauha Bhasma (Calx of iron)</i></p>
<i>Draksha Pak(17)</i>	<p><i>Munakka (Vitis vinifera – dried fruit)</i>  <i>Godugdha (Cow’s milk)</i>  <i>Mishri (Crystallized sugar)</i>  <i>Twak (Cinnamomum zeylanicum – bark)</i>  <i>Ela (Elettaria cardamomum – fruit)</i>  <i>Tejpatra (Cinnamomum tamala – leaf)</i>  <i>Nagkesar (Mesua ferrea – stamen)</i>  <i>Shunthi (Zingiber officinale – dried rhizome)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Kasturi (Moschus moschiferus – musk secretion)</i>  <i>Lauha Bhasma (Calx of iron)</i>  <i>Abhrak Bhasma (Calx of mica)</i>  <i>Kesar (Crocus sativus – stigma)</i>  <i>Javitri (Myristica fragrans – aril)</i>  <i>Jaiphal (Myristica fragrans – seed)</i>  <i>Kapoor (Cinnamomum camphora – crystal/exudate)</i>  <i>Rajat Bhasma (Calx of silver)</i>  <i>Dhaniya (Coriandrum sativum – seed)</i>  <i>Chandan (Santalum album – heartwood)</i></p>
<i>Amra Pak(18)</i>	<p><i>Aamra (Mangifera indica – fruit pulp)</i>  <i>Chini (Saccharum officinarum – sugar)</i>  <i>Goghrit (Cow’s ghee)</i>  <i>Shunthi (Zingiber officinale – dried rhizome)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Dhaniya (Coriandrum sativum – seed)</i>  <i>Jeera (Cuminum cyminum – seed)</i>  <i>Nagarmotha (Cyperus rotundus – rhizome)</i>  <i>Chitraka / Chita (Plumbago zeylanica – root)</i>  <i>Twak (Cinnamomum zeylanicum – bark)</i>  <i>Jeera (Bunium bulbocastanum – seed)</i>  <i>Pippalimula (Piper longum – root)</i>  <i>Nagkesar (Mesua ferrea – stamen)</i>  <i>Ela (Elettaria cardamomum – seed)</i></p>

	<p><i>Lavang (Syzygium aromaticum – flower bud)</i>  <i>Javitri (Myristica fragrans – aril)</i></p>
<i>Amradi yavagu(19)</i>	<p><i>Amra (Mangifera indica – stem bark)</i>  <i>Amrataka (Spondias pinnata – stem bark)</i>  <i>Jambu (Syzygium cumini – stem bark)</i>  <i>Shali (Oryza sativa – grain)</i></p>
<i>Kantakaryavleha (19)</i>	<p><i>Kantakari (Solanum surattense – whole plant)</i>  <i>Guduchi (Tinospora cordifolia – stem)</i>  <i>Chavya (Piper retrofractum – root)</i>  <i>Chitrak (Plumbago zeylanica – root)</i>  <i>Musta (Cyperus rotundus – rhizome)</i>  <i>Karkatashringi (Pistacia integerrima – gall)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Shunthi (Zingiber officinale – rhizome)</i>  <i>Duralabha (Fagonia cretica – whole plant)</i>  <i>Bharangi (Clerodendrum serratum – root)</i>  <i>Rasna (Pluchea lanceolata – root)</i>  <i>Karchoor (Curcuma zedoaria – rhizome)</i>  <i>Sharkara (Saccharum officinarum – crystallized sugar)</i>  <i>Madhu (Honey)</i>  <i>Vanshlochan (Bambusa arundinacea – exudate)</i>  <i>Pippali (Piper longum – fruit)</i></p>
<i>Kusmanda avaleha (19)</i>	<p><i>Kushmanda (Benincasa hispida – fruit)</i>  <i>Pippali (Piper longum – fruit)</i>  <i>Shunthi (Zingiber officinale – rhizome)</i>  <i>Jeerak (Cuminum cyminum – seed)</i>  <i>Dhanyak (Coriandrum sativum – seed)</i>  <i>Tejpatra (Cinnamomum tamala – leaf)</i>  <i>Ela (Elettaria cardamomum – seed)</i>  <i>Marich (Piper nigrum – fruit)</i>  <i>Twak (Cinnamomum zeylanicum – bark)</i>  <i>Goghrita (Cow's ghee)</i>  <i>Madhu (Honey)</i></p>
<i>Agastya-haritaki avaleha (19)</i>	<p><i>Haritaki (Terminalia chebula – fruit)</i>  <i>Yava (Hordeum vulgare – seed)</i>  <i>Bilva (Aegle marmelos – root)</i>  <i>Agnimantha (Clerodendrum phlomidis – root)</i>  <i>Shyonaka (Oroxylum indicum – root)</i>  <i>Patala (Stereospermum suaveolens – root)</i>  <i>Gambhari (Gmelina arborea – root)</i>  <i>Shalaparni (Desmodium gangeticum – root)</i>  <i>Prishnaparni (Uraria picta – root)</i>  <i>Brihati (Solanum indicum – root)</i>  <i>Kantakari (Solanum xanthocarpum – root)</i>  <i>Gokshura (Tribulus terrestris – root)</i>  <i>Chitrak (Plumbago zeylanica – root)</i>  <i>Pippalimula (Piper longum – root)</i>  <i>Apamarga (Achyranthes aspera – whole plant)</i></p>

	<i>Karchoor (Curcuma zedoaria – rhizome)</i> <i>Kapikachhu (Mucuna pruriens – seed)</i> <i>Shankhpushpi (Convolvulus pluricaulis – whole plant)</i> <i>Bharngi (Clerodendrum serratum – root)</i> <i>Gajapippali (Scindapsus officinalis – fruit)</i> <i>Bala (Sida cordifolia – root)</i> <i>Pushkarmula (Inula racemosa – root)</i> <i>Goghrita (Cow’s clarified butter)</i> <i>Til taila (Sesamum indicum – oil)</i> <i>Madhu (Apis mellifera – honey)</i> <i>Pippali (Piper longum – fruit)</i>

### Opportunities and obstacles in integrating Ayurveda with nutraceutical science

The ancient system of Ayurveda offers a rich tradition of plant and food based therapies, personalized constitution (prakriti) frameworks and preventive health philosophy, all of which align strongly with the modern nutraceutical paradigm of functional foods and bioactive compounds. For example, Yogita sharma in his paper note a conceptual overlap of Ayurvedic “hita ahara”, “satmya ahara” and rasāyana dravyas with nutraceuticals.(20) The growing global demand for natural, preventive, lifestyle-oriented health solutions provides a favourable market environment: the Ayurvedic industry can lend its legitimacy and trust to nutraceutical development, and the field of “Nutri-Ayuromics” is emerging as a fusion of nutrigenomics, omics technologies and Ayurvedic prakriti phenotypes. (21)

However, significant obstacles hamper meaningful integration. Key issues include lack of standardization of herbal raw materials, variable potency and quality, absence of validated biomarkers or rapid efficacy models, slow adoption of novel dosage forms or formulations, weak regulatory harmonisation and intellectual property challenges.(22)Moreover, the field of nutraceuticals itself is confronted by formulation, regulation and evidence gaps, such that merging two complex systems increases complexity rather than simplifies it.(23,24)Effective integration will depend on rigorous phytochemical and pharmacological standardization, translational clinical studies, Phyto-pharmacovigilance, regulatory frameworks that accommodate both traditional wisdom and modern science, and business models that respect cultural integrity while driving innovation.

It will need a multifaceted strategy and coordinated effort by medical professionals, legislators, and the scientific community to overcome these obstacles and close the gap between conventional thinking and contemporary evidence-based medicine. In order to

achieve this main objective, we anticipate that this special issue will prove to be a crucial step.

## CONCLUSION

The exploration of Ayurvedic nutraceutical recipes highlights the profound harmony between ancient dietary wisdom and modern scientific understanding of functional nutrition. Ayurveda, since its inception, has regarded *Ahara* (food) not merely as sustenance but as a vital therapeutic tool for maintaining equilibrium of the body and mind. The classical formulations—such as *Yavagu*, *Ksheerapaka*, *Avaleha*, *Mantha*, and *Rasayana Kalpana*—reflect an advanced awareness of the nutritional and medicinal potential of food long before the concept of nutraceuticals emerged in modern science. These recipes are rich sources of bioactive phytoconstituents, antioxidants, and immunomodulators that strengthen the body's resilience, support metabolism, and enhance longevity.

In the context of lifestyle disorders like obesity, diabetes, cardiovascular ailments, and stress-related conditions, Ayurvedic nutraceuticals offer personalized, preventive, and holistic approaches that address the root causes rather than symptoms. They embody the principles of *Pathya-Apathya* (wholesome and unwholesome diet), *Rasayana* (rejuvenation), and *Dinacharya* (daily regimen), demonstrating that balanced dietary practices can restore and sustain health.

However, to realize their full global potential, it is essential to bridge the gap between traditional formulations and contemporary nutraceutical science. This can be achieved through standardization of ingredients, advanced analytical validation, clinical studies, and policy frameworks that integrate Ayurveda with modern health systems. Promoting interdisciplinary collaboration among Ayurvedic scholars, nutrition scientists, and pharmaceutical researchers will foster innovation while preserving cultural authenticity.

Ultimately, Ayurvedic nutraceuticals represent not just a rediscovery of ancient wisdom but a sustainable model for future healthcare—uniting nourishment, prevention, and rejuvenation in one comprehensive framework for lifestyle balance and well-being.

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