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LONGEVITY AND VITALITY: UNITING ANCIENT AYURVEDA PRINCIPLES WITH CONTEMPORARY MEDICAL CARE - AN EVIDENCE BASED REVIEW

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ABSTRACT

Ayurveda, the ancient science of life, emphasizes promoting longevity and vitality through *Ayurvedhaka* (life-promoting) and *Vayasthapaka* (age-stabilizing) herbs. These herbs, central to *Rasayana* therapy, rejuvenate bodily tissues, booster immunity, and delay aging. Key examples include *Amalaki* (*Embllica officinalis*), *Ashwagandha* (*Withania somnifera*), *Guduchi* (*Tinospora cordifolia*), *Haritaki* (*Terminalia chebula*) and other herbs known for their adaptogenic, antioxidant, and immunomodulatory properties.

Ayurvedhaka herbs extend life span by revitalizing tissues and maintaining physiological balance, while *Vayasthapaka* herbs do counter aging by preserving vitality and preventing degenerative changes. These properties make them particularly relevant in addressing modern health challenges like diabetes, hypertension, and neurodegenerative diseases. For instance, *Amalaki*'s high vitamin C content combats

oxidative stress, *Ashwagandha* enhances stress resilience, and *Guduchi* and *Haritaki* support immune function and detoxification.

Modern pharmacological studies validate their traditional uses, highlighting their role in reducing oxidative damage, enhancing energy metabolism, and managing chronic diseases. Integrating these *Ayurvedic* concepts into contemporary healthcare offers sustainable, preventive solutions for non-communicable diseases. Future research should focus on clinical trials and standardization to optimize their efficacy and safety. Combining Ayurveda's holistic wisdom with modern science holds immense potential to redefine health, longevity, and vitality in a global context.

Keywords: Ayurveda, Integration, Longevity, Vitality, Herbal

INTRODUCTION

Ayurveda, the ancient science of life and longevity, holds a timeless understanding of health, well-being, and the pursuit of a long, disease-free life. In this holistic medical system, the concepts of *Ayurvedhaka* (life-promoting) and *Vayasthapaka* (age-stabilizing) *dravyas* plays a pivotal role in promoting longevity (*Ayu*), vitality (*Bala*), and youthfulness (*Vayas*). These *dravyas*, often grouped under *Rasayana* therapy, form an integral part of Ayurvedic practice aimed not only at curing ailments but also at enhancing the quality and span of life. The *Charaka Samhita* describes *Rasayana* therapy as a means to achieve longevity, intelligence, immunity, and overall vigour in life [1].

The term *Ayurvedhaka* refers to herbs and formulations that extend life expectancy by rejuvenating bodily tissues, strengthening immunity, and maintaining optimal physiological functions. On the other hand, *Vayasthapaka dravyas* are substances that delay the process of aging, preserve *ojas*

(vital essence), and combat the degenerative changes that naturally occur with time [2]. These *dravyas*, when utilized appropriately, work to maintain the harmony between body, mind, and soul, thereby delaying senescence and promoting longevity with vigor and strength.

In the modern era, where the burden of lifestyle disorders, stress, and aging-related diseases is increasing exponentially, the relevance of *Ayurvedhaka* and *Vayasthapaka dravyas* is more significant than ever. Lifestyle disorders such as diabetes, hypertension, cardiovascular diseases, neurodegenerative disorders, and general debility have become increasingly common due to stress, improper dietary habits, and sedentary lifestyles. *Ayurveda* identifies *Rasayana* herbs like *Amalaki* (*Emblia officinalis*), *Guduchi* (*Tinospora cordifolia*), *Ashwagandha* (*Withania somnifera*), and *Haritaki* (*Terminalia chebula*) for their potent antioxidant, immunomodulatory, and anti-aging

properties [3, 4]. These herbs not only delay aging but also play a role in preventing and managing chronic diseases [5].

Modern pharmacological studies validate the claims made in Ayurvedic texts. For instance, *Amalaki* has been shown to possess high levels of Vitamin C, which combats oxidative stress and promotes cellular rejuvenation [6]. Similarly, *Ashwagandha* exhibits adaptogenic properties, helping the body adapt to stress while enhancing energy and endurance [7]. Herbs like *Guduchi* are recognized for their immunomodulatory and anti-inflammatory effects, making them particularly relevant for preventing age-related diseases [8].

This article explores the concept, classification, and practical applications of *Ayurvedhaka* and *Vayasthapaka dravyas* in current-day practice. It examines their traditional uses as described in *samhitas* and other authoritative Ayurveda texts, their pharmacokinetic and biochemical properties, and their growing significance in modern healthcare. By integrating traditional wisdom with contemporary scientific evidence, we aim to highlight how these *dravyas* can effectively address today's health challenges and provide sustainable solutions for promoting longevity and youthfulness.

MATERIALS AND METHODS

Selection of Ayurvedic Texts

Classical Ayurvedic texts, including the Charaka Samhita, Sushruta Samhita, and Ashtanga Hridaya, were reviewed to identify herbs classified as *Ayurvedhaka* (life-promoting) and *Vayasthapaka* (age-stabilizing). Emphasis was placed on *Rasayana* therapy and its formulations, with specific focus on herbs such as *Amalaki* (*Emblica officinalis*), *Ashwagandha* (*Withania somnifera*), *Guduchi* (*Tinospora cordifolia*), *Haritaki* (*Terminalia chebula*), and *Shatavari* (*Asparagus racemosus*). Textual references of their properties, applications, and dosages were analysed.

Literature Review and Data Collection

A systematic review of scientific publications was conducted using databases such as PubMed, Scopus, and Google Scholar. Search terms included "*Ayurvedhaka*," "*Vayasthapaka*," "*Rasayana*," "anti-aging herbs," and specific herb names. Peer-reviewed articles, clinical studies, and pharmacological research were selected to validate the traditional claims of these herbs. Studies published from 2000 onwards were prioritized to ensure relevance to modern healthcare.

Experimental Validation

Pharmacological data, including antioxidant, immunomodulatory, and adaptogenic properties of selected herbs, were extracted from published in vivo and in vitro studies. Observations from clinical trials were also incorporated.

Analysis of Mechanisms

Traditional Ayurveda drug properties (*Rasa*, *Guna*, *Virya*, *Vipaka*, and *Prabhava*) were correlated with biochemical pathways identified in modern studies. Emphasis was placed on oxidative stress reduction, immune modulation, and tissue rejuvenation.

Integration Framework

A conceptual framework was developed to integrate herbs mentioned in Ayurveda into contemporary healthcare, considering pharmacokinetics, dosage standardization, and potential synergistic applications with modern medicine.

This methodology bridges ancient Ayurvedic wisdom with scientific evidence to explore sustainable solutions for longevity and vitality.

Concept of *Ayurvedhaka* (Longevity) and *Vayasthapaka* (Vitality) in Ayurveda

The term *Ayurvedhaka* is combined of two words: *Ayu* (life) and *Vardhaka* (enhancing or promoting), referring to substances, formulations or practices that promote longevity, prevent diseases and sustain health by rejuvenating bodily tissues [9].

Similarly, *Vayasthapaka* is derived from *Vaya* (age) and *Sthapaka* (stabilizing or delaying), indicating substances that slow down the aging process, maintain youthfulness, and preserve *ojas* (vital essence) [10].

Ayurveda Textual References

The importance of *Ayurvedhaka* and *Vayasthapaka dravyas* is widely discussed in classical Ayurvedic texts. *Charaka Samhita* emphasizes *Rasayana Chikitsa* for its ability to rejuvenate the body, improve memory, promote immunity, and extend longevity [1]. For instance, in *Chikitsa Sthana*, *Amalaki* (*Emblica officinalis*) is described as one of the best *Rasayana dravyas* for its ability to enhance life span, improve digestion, and combat aging [9].

Sushruta Samhita also elaborates on *Rasayana dravyas* in its *Sutrasthana*. It describes *Rasayana* as substances that not only prevent aging but also treat degenerative disorders and enhance physical and mental endurance [10]. Herbs like *Guduchi* (*Tinospora cordifolia*), *Haritaki* (*Terminalia chebula*), and *Ashwagandha* (*Withania somnifera*) are repeatedly mentioned for their immunomodulatory, rejuvenate, and age-stabilizing properties [2, 11].

Ashtanga Hridaya further highlights the role of *Rasayana* therapy in maintaining equilibrium between the three doshas (*Vata*, *Pitta*, *Kapha*), promoting the production of healthy *dhatu*s (tissues), and preserving *ojas*, which is considered as the essence of life [12]. It also emphasizes the practical use of *Rasayana* herbs in combating premature aging and improving vitality.

Thus, Ayurvedic literature underscores the importance of *Ayurvedhaka* and

Vayasthapaka dravyas not only in prolonging life but also in maintaining holistic health, which is crucial in the context of today's modern health challenges.

Natural Herbs and Their Properties:

Ayurvedic texts classify *Ayurvedhaka* and *Vayasthapaka dravyas* primarily based on

their properties-*Rasa* (taste), *Guna* (qualities), *Virya* (potency), *Vipaka* (post-digestive effect), and *Prabhava* (specific action). These herbs play a significant role in maintaining health, enhancing longevity, and stabilizing aging processes [13].

Table 1: Ayurveda names and references:

Name of the drug	Properties	Key Benefits	References
<i>Amalaki (Emblica officinalis)</i>	<i>Rasa: Amla</i> (Sour), <i>Madhura</i> (Sweet); <i>Guna: Laghu</i> (Light), <i>Rooksha</i> (Dry) <i>Virya: Sheetha</i> (Cold); <i>Vipaka: Madhura</i> (Sweet)	Rich in Vitamin C and antioxidants Nourishes all <i>dhatu</i> s (body tissues) Acts as <i>Rasayana</i> for rejuvenation, Enhances longevity.	[9, 13]
<i>Guduchi (Tinospora cordifolia)</i>	<i>Rasa: Tiktha</i> (Bitter), <i>Kashaya</i> (Astringent) <i>Guna: Laghu</i> (Light), <i>Snigdha</i> (Unctuous) <i>Virya: Hot</i> <i>Vipaka: Madhura</i> (Sweet)	Immunomodulatory Anti-inflammatory effects Adaptogenic effects Rejuvenates tissues Delays age-related degeneration.	[8, 11]
<i>Ashwagandha (Withania somnifera)</i>	<i>Rasa: Tiktha</i> (Bitter), <i>Madhura</i> (Sweet) <i>Guna: Guru</i> (Heavy), <i>Snigdha</i> (Unctuous) <i>Virya: Ushna</i> (Hot) <i>Vipaka: Madhura</i> (Sweet)	Potent adaptogen Enhances physical endurance Reduces stress Promotes tissue regeneration Essential <i>Vayasthapaka</i> herb.	[7, 14]
<i>Haritaki (Terminalia chebula)</i>	<i>Rasa: All except Lavana</i> (Salty) <i>Guna: Laghu</i> (Light), <i>Rooksha</i> (Dry) <i>Virya: Mildly Ushna</i> (Hot) <i>Vipaka: Madhura</i> (Sweet)	<i>Rasayana</i> herb that cleanses the body Improves digestion Prevents premature aging.	[3, 15]
<i>Shatavari (Asparagus racemosus)</i>	<i>Rasa: Madhura</i> (Sweet), <i>Tiktha</i> (Bitter) <i>Guna: Guru</i> (Heavy), <i>Snigdha</i> (Unctuous) <i>Virya: Sheetha</i> (Cold) <i>Vipaka: Madhura</i> (Sweet)	Nourishes <i>ojas</i> Improves vitality Enhances reproductive health Ideal for stabilizing youthfulness.	[13, 15]

These herbs possess unique pharmacological actions validated through modern studies, such as antioxidant, immunomodulatory, anti-stress, and rejuvenating effects, which align with their descriptions in Ayurvedic literature.

Formulations in Classical Texts

Several classical formulations have been described in Ayurvedic texts that combine multiple *Ayurvedhaka* and *Vayasthapaka dravyas* to maximize their therapeutic benefits. Some of those formulations include:

Table 2: Formulations in Classical Texts

Formulation	Drugs with Botanical Names	Probable Mode of Action	References
<i>Chyavanprasha</i>	<i>Amalaki (Emblca officinalis)</i> , <i>Guduchi (Tinospora cordifolia)</i> , <i>Jeevanthi (Leptadenia reticulata)</i> , <i>Ashwagandha (Withania somnifera)</i> , <i>Pippali (Piper longum)</i> , and others.	Rich in antioxidants (Vitamin C and polyphenols) Combats oxidative stress Boosts immunity through immune-modulating phytochemicals Promotes collagen synthesis for rejuvenation.	[1, 16]
<i>Guduchi Rasayana</i>	<i>Guduchi (Tinospora cordifolia)</i> , <i>Haritaki (Terminalia chebula)</i> , <i>Amalaki (Emblca officinalis)</i> , and others.	Enhances detoxification through hepatoprotective and antioxidant actions Improves tissue repair by modulating pro-inflammatory cytokines and supporting cellular regeneration.	[10, 17]
<i>Ashwagandhadi Lehyam</i>	<i>Ashwagandha (Withania somnifera)</i> , Ghee, Sugar.	Acts as an adaptogen by regulating cortisol level Reduces oxidative stress Improves mitochondrial function Enhances physical endurance and stress resilience.	[7, 12]
<i>Triphaladi Rasayana</i>	<i>Haritaki (Terminalia chebula)</i> , <i>Amalaki (Emblca officinalis)</i> , <i>Bibhitaki (Terminalia bellirica)</i> .	Balances gut microbiota Enhances digestive enzyme activity Supports liver detoxification Provides systemic rejuvenation through antioxidant and anti-inflammatory properties.	[13, 18]
<i>Brahma Rasayana</i>	<i>Amalaki (Emblca officinalis)</i> , <i>Guduchi (Tinospora cordifolia)</i> , <i>Shatavari (Asparagus racemosus)</i> , and others.	Nourishes neurons by reducing oxidative damage Enhances cognitive function by modulating acetylcholine levels Improves systemic energy metabolism through adaptogenic effects.	[12, 19]

Pharmacokinetics and Biochemical Properties

The pharmacokinetics and biochemical properties of *Ayurvedhaka* and *Vayasthapaka dravyas* have been described in Ayurvedic texts, and recent scientific research has validated their actions. Ayurvedic principles outline the concepts of *Rasa* (taste), *Guna* (qualities), *Virya* (potency), *Vipaka* (post-digestive effect), and *Prabhava* (unique action) to explain the metabolism and effects of these substances [20]. Modern studies evaluate their absorption, distribution, metabolism, and

excretion (ADME), highlighting their biochemical impact.

1. *Amalaki (Emblca officinalis)*

- **Pharmacokinetics:** The bioavailability of *Amalaki* is attributed to its water-soluble polyphenols and vitamin C, which are readily absorbed in the intestine.
- **Biochemical Properties:** *Amalaki* exhibits strong antioxidant activity due to its high tannin, flavonoid, and vitamin C content, which

scavenge free radicals and reduce oxidative stress [21].

2. *Ashwagandha* (*Withania somnifera*)

○ **Pharmacokinetics:**

Withanolides, the primary active constituents of *Ashwagandha*, are lipophilic compounds that are easily absorbed and distributed across cellular membranes.

○ **Biochemical Properties:**

Ashwagandha acts as an adaptogen, reducing cortisol levels and enhancing mitochondrial activity to combat stress and fatigue [22].

3. *Guduchi* (*Tinospora cordifolia*)

○ **Pharmacokinetics:**

Guduchi's alkaloids and polysaccharides exhibit high bioavailability and are metabolized in the liver.

○ **Biochemical Properties:**

Guduchi exerts immunomodulatory and anti-inflammatory effects by modulating cytokines and enhancing macrophage activity [23].

4. *Haritaki* (*Terminalia chebula*)

○ **Pharmacokinetics:**

Bioactive compounds such

as gallic acid and chebulinic acid are absorbed quickly in the gastrointestinal tract.

○ **Biochemical Properties:**

Haritaki enhances digestive enzymes, detoxifies the colon, and reduces cellular aging through its antioxidant properties [15, 24].

Mode of Action (Traditional and Modern View)

Traditional View

Ayurveda explains the action of *Ayurvedhaka* and *Vayasthapaka dravyas* through their ability to balance the *Tridoshas* (*Vata*, *Pitta*, and *Kapha*), nourish the *dhatu*s (body tissues), and preserve *ojas* (vital essence). These substances work at a systemic level to rejuvenate tissues (*Rasayana*), prevent degeneration, and enhance the life span [1, 12].

For example:

- *Amalaki* pacifies all three *doshas* and promotes *ojas* through its cooling *Virya* and rejuvenating action [13].
- *Ashwagandha* acts as *Balya* (strength-promoting) and *Vatahara*, reducing physical and mental stress [14].
- *Guduchi* purifies the blood, supports digestion, and enhances immunity through its *Tikta* (bitter) *Rasa* and *Pachana* (digestive) properties [17].

Modern View

Modern pharmacological studies reveal that the mode of action of *Ayurvedhaka* and *Vayasthapaka dravyas* can be attributed to their bioactive compounds, which act at cellular and molecular levels.

1. *Amalaki*:

- Its antioxidant properties neutralize reactive oxygen species (ROS), reducing oxidative stress and cellular damage [21].
- Enhances mitochondrial function and protects tissues from aging-related degeneration [16].

2. *Ashwagandha*:

- Withanolides act on the hypothalamic-pituitary-adrenal (HPA) axis, reducing cortisol levels and improving stress resilience [22].
- Enhances neuroprotection and synaptic function, delaying cognitive aging [25].

3. *Guduchi*:

- Modulates immune response by increasing the activity of T-cells and macrophages, enhancing resistance to infections and age-related decline [23].

- Exhibits anti-inflammatory effects by inhibiting pro-inflammatory cytokines [26].

Thus, traditional wisdom and modern pharmacology align in highlighting the rejuvenative and anti-aging effects of these herbs.

Chemical Constituents

The chemical constituents of *Ayurvedhaka* and *Vayasthapaka dravyas* are responsible for their therapeutic properties:

1. *Amalaki (Emblica officinalis)*

- Rich in Vitamin C, gallic acid, ellagic acid, quercetin, tannins, and flavonoids. These compounds exhibit strong antioxidant and anti-inflammatory effects [21].

2. *Ashwagandha (Withania somnifera)*

- Contains withanolides (steroidal lactones), withaferin A, alkaloids, and saponins, which possess adaptogenic, anti-stress, and neuroprotective activities [14, 22].

3. *Guduchi (Tinospora cordifolia)*

- Contains alkaloids (berberine, tinosporin), polysaccharides, glycosides, and terpenoids, which contribute to its

immunomodulatory and anti-aging effects [23].

4. *Haritaki (Terminalia chebula)*

- Major constituents include gallic acid, chebulagic acid, ellagic acid, and tannins, which are responsible for its antioxidant and detoxifying properties [24].

5. *Shatavari (Asparagus racemosus)*

- Rich in steroidal saponins, flavonoids, and alkaloids, which promote hormonal balance and enhance vitality [13, 27].

Scientific Evidence and Clinical Studies

Modern research has provided substantial evidence validating the efficacy of *Ayurvedhaka* and *Vayasthapaka dravyas* in longevity and anti-aging therapy. Numerous clinical studies have demonstrated their role in reducing oxidative stress, improving immunity, and preventing age-related degeneration.

1. *Amalaki (Emblica officinalis)*:

- A study by Baliga *et al.* [21] reported that *Amalaki* significantly reduces oxidative stress and inflammation in aging individuals due to its high vitamin C and polyphenolic content.

- Clinical trials revealed that *Amalaki* supplementation improves antioxidant enzyme levels like catalase and superoxide dismutase (SOD), delaying aging-related tissue damage [36].

2. *Ashwagandha (Withania somnifera)*:

- A randomized double-blind study demonstrated that *Ashwagandha* reduces cortisol levels and enhances resilience to stress, slowing down stress-induced aging [25, 37].
- Neuroprotective properties of *Ashwagandha* were confirmed in animal studies, where it improved synaptic function and reduced neurodegenerative changes [22, 34].

3. *Guduchi (Tinospora cordifolia)*:

- Research by Upadhyay *et al.* [23] confirmed *Guduchi's* immunomodulatory effect, enhancing macrophage activity and promoting longevity.
- Clinical trials have shown that *Guduchi* improves age-related immunity decline and

reduces inflammatory markers in older adults [38].

4. *Haritaki (Terminalia chebula)*:

- A study on *Haritaki* demonstrated its role in reducing lipid peroxidation and improving antioxidant defense mechanisms, thus protecting tissues from oxidative damage [24, 39].

5. *Shatavari (Asparagus racemosus)*:

- Research indicates that *Shatavari* supplementation enhances hormonal balance and promotes vitality in aging individuals, particularly in menopausal women [27, 40].

Table 3: Clinical Evidence

Herb	Study Outcome	Reference
<i>Amalaki</i>	Reduces oxidative stress and inflammation	21, 36
<i>Ashwagandha</i>	Lowers cortisol, improves cognition	22, 37
<i>Guduchi</i>	Enhances immunity and reduces inflammation	23, 38
<i>Haritaki</i>	Improves antioxidant enzyme levels	24, 39
<i>Shatavari</i>	Maintains hormonal balance in menopausal women	27, 40

Key Benefits of *Rasayana* Therapy:

1. Delays Cellular Senescence:

Rasayana dravyas prevent early senescence of cells through their antioxidant and anti-inflammatory properties, protecting tissues from free radical damage [32].

2. Improves Immunity:

Herbs like *Guduchi* and *Amalaki* enhance the immune system's ability to combat infections and oxidative stress, which are significant factors contributing to aging [23, 33].

3. Enhances Neuroprotection:

Adaptogenic herbs such as *Ashwagandha* protect neuronal cells, improve cognition, and delay neurodegenerative changes associated with aging [34].

4. Maintains Hormonal Balance:

Shatavari and *Ashwagandha* are known to regulate hormonal levels, particularly in menopause and andropause, thus improving vitality and reproductive longevity [27, 35].

Ways to Integrate with Modern Medicine

The integration of *Ayurvedic therapies*, particularly *Ayurvedhaka* and *Vayasthapaka dravyas*, with modern medical strategies could address critical gaps in the current treatment landscape. Modern medicine often focuses on symptomatic treatment and does not always target the root causes of chronic diseases, such as oxidative stress, impaired metabolism, and hormonal imbalances. Ayurveda, by contrast, offers personalized,

preventive, and holistic interventions that can complement standard treatments.

Modern healthcare systems can integrate *Ayurvedic adaptogens* through collaborative and interdisciplinary approaches. A key area of integration can include the use of *Rasayana therapies*, such as *Ashwagandha* and *Amalaki*, for early-stage interventions to mitigate the progression of chronic diseases. Moreover, these therapies can be used alongside standard pharmaceutical drugs to manage stress, regulate hormonal pathways, and reduce the incidence of adverse drug effects linked to long-term use [50, 51].

Studies suggest that Ayurvedic interventions can enhance gut health, modulate the immune response, and reduce systemic inflammation, making them a valuable addition to the modern medical framework. Scientific literature emphasizes that targeted use of *Ayurvedic herbs* such as *Ashwagandha*, *Amalaki*, and *Tinospora cordifolia* can improve glycemic control, manage hypertension, and combat oxidative stress [50, 52, 53].

Future research should prioritize standardized clinical studies to ascertain optimal dosages, mechanisms of action, and long-term effects of *Ayurvedhaka* and *Vayasthapaka dravyas*. Rigorous pharmacological evaluations and trials will provide additional validation and encourage their inclusion in the standard care protocols of NCD management [50].

Government and institutional efforts could focus on encouraging evidence-based integration strategies. This would involve conducting randomized controlled trials (RCTs) and longitudinal studies to ensure that Ayurvedic formulations and *dravyas* are safe, standardized, and effective. Additionally, cross-training healthcare practitioners in Ayurveda could ensure a smoother interface between conventional and complementary medicine.

Furthermore, Ayurveda's emphasis on lifestyle modifications (dietary interventions, stress management, and daily routines) in conjunction with *Ayurvedhaka* and *Vayasthapaka* can provide a multi-pronged approach for reducing the burden of NCDs. Lifestyle interventions that align with Ayurvedic principles can improve patient outcomes by addressing foundational risk factors such as poor diet, sedentary habits, and stress [50, 51].

Modern pharmacological research also supports this integration. Studies on *Ashwagandha* and *Tinospora cordifolia* show that these herbs can regulate stress hormone levels like cortisol, which are linked to hypertension and metabolic disorders [50, 52]. By combining the use of these herbs with antihypertensive or antidiabetic medications, we can create synergistic effects that improve patient outcomes while reducing the dosage of

synthetic drugs, thereby minimizing adverse effects.

CONCLUSION

In conclusion, *Ayurvedhaka* and *Vayasthapaka dravyas* hold immense potential for addressing the growing global burden of non-communicable diseases (NCDs) and promoting overall health and longevity. Rooted in ancient wisdom and supported by modern scientific evidence, these natural substances exemplify a bridge between traditional Ayurveda and contemporary medicine. Their adaptogenic, antioxidant, and metabolic-regulating properties make them viable options for the prevention and management of chronic diseases such as hypertension, diabetes, cardiovascular disorders, and mental health conditions.

The ability of *Ayurvedhaka* and *Vayasthapaka dravyas* to combat oxidative stress, modulate stress responses, and enhance immune function is a testament to their multifaceted role in *Rasayana* therapies and holistic healing approaches. Additionally, integrating these natural remedies into the modern medical system can provide a synergistic approach to treatment while minimizing the adverse effects of conventional drugs.

The recommendations for future research emphasize the need for rigorous clinical trials, evidence-based validation, and standardization of these *dravyas* to ensure

their safety, efficacy, and dosage optimization. Moreover, interdisciplinary collaboration between Ayurveda practitioners and modern medical researchers can foster the development of innovative therapeutic strategies.

By combining the principles of Ayurveda with modern pharmacological advancements, *Ayurvedhaka* and *Vayasthapaka* can serve as effective and sustainable solutions to tackle lifestyle-related chronic diseases and support well-being in an increasingly health-conscious world. This integration not only honours the ancient wisdom of Ayurveda but also aligns with modern-day needs for holistic, preventive, and patient-centered care.

The path forward lies in fostering cross-disciplinary understanding, implementing evidence-based interventions, and leveraging the comprehensive healing potential of *Ayurvedic dravyas* to combat global health challenges and promote a sustainable and balanced approach to medicine.

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