Integrative endeavor for renaissance in Ayurveda

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ABSTRACT

Currently western medicine has assumed the central position in mainstream global healthcare. Openness to learn from contemporary disciplines of basic sciences, application of modern technology and further adoption of the evidence-based approach has helped western medicine gain its currently acknowledged position as mainstream modern medicine. Modern medicine has further developed forms of integrative medicine by developing interfaces with other systems of medicine, including traditional, complementary and alternative medicine. However, these developments do not seem to address all the problems facing global health care caused by overemphasis on pharmaco-therapeutic drug developments. On the other hand, Ayurveda which is founded on genuine fundamentals, has the longest uninterrupted tradition of healthcare practice, and its holistic approach to healthcare management emphasizes disease prevention and health promotion; if it opens up to incorporate emerging new knowledge into mainstream Ayurveda, and maintains fidelity to Ayurveda fundamentals, it will certainly provide a broad-based opportunity to address the majority of the problems that have emerged from global healthcare requirements. To bring these solutions to bear, however, it will be necessary to progress from the present "utilitarian ethos" to a "unifying ethos" for realization of medical integration.

Key words: Ayurveda, global healthcare, integrative Ayurveda, integrative medicine

INTRODUCTION

The recent 4th World Ayurveda Congress has demonstrated Ayurveda's increasing popularity. Over 4000 registered delegates, and about 3 lakh visitors attended and toured Arogya Expo, the exhibition of Ayurvedic products including pharmacy products, healthcare products, panchakarma equipment, books, and other publications, software, Ayurveda training modules, and many other emerging Ayurveda secondary businesses.^[1]

Despite unfavorable political conditions for the past several

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centuries, Ayurveda has continued to serve India's various communities through its uninterrupted tradition of clinical practice. In the period since independence, reforms in Ayurvedic educational policies have matured to deliver a cadre of increasingly confident Ayurvedic doctors wishing to grow and excel in their professional careers.

The movement toward serious scientific research in Ayurveda was formally adopted by establishing postgraduate centers at Banaras Hindu University and Gujarat Ayurveda University. Later initiatives by the Government of India, establishing the Central Council for Indian Medicine (CCIM), the Central Council for Research on Ayurveda and Siddha (CCRAS), and the Department of AYUSH, have given an incentive for other NGO's, industries and the private sector to venture into research and training in Ayurveda. Recently organized research programs such as the Council for Scientific and Industrial Research's NMITLI program,^[2] the Prime Minister's Office's Science Initiative in Ayurveda, [3] and the Indian Council for Medical Research's establishment of an Advanced Centre for Reverse Pharmacology in traditional medicine^[4] exemplify the expanding movement of research and education in Ayurveda. It is apparent that the present age has brought a revival to Ayurveda. However, as Patwardhan has pointed out,[5] what would be more desirable than revivalism would be a full renaissance for Ayurveda.

In the global context, western medicine^[6] (earlier termed "Allopathy" and now more aptly "modern medicine") has assumed the central position in mainstream global healthcare. Most advancing biomedical and paramedical branches subscribe to the tenets of western medicine. The evidence-based approach adopted by western medicine has helped it grow into its currently acknowledged position in mainstream medicine. Further, modern medicine's current openness to learn from other systems of medicine has led to the starting of "Integrative Medicine" departments in high profile universities in the western world. A related development has been scientific journals dedicated to Integrative Medicine.

INTEGRATIVE MEDICINE

The term "Integrative Medicine" is commonly used to describe the combination of Allopathy and Complementary and Alternative Medicine (CAM).^[7] Its dictionary definition is "a term for the incorporation of alternative therapies into mainstream medical practice."

The core idea of integrative medicine is that anything and everything potentially useful for human health should be explored, and, if proved useful through evidence-based approaches, considered for inclusion in mainstream. This approach embodies the ethos of "Therapeutic utility." In western Integrative Medicine, the foundational platform is modern medicine, with bridges connecting it to systems of CAM including traditional, CAM systems. Its primary desired expertise is clinical investigator; its goal is to derive active molecules from natural products; its R and D revolves around understanding molecular mechanisms. Such integrative medicine certainly expands the pharmacotherapeutic armamentarium for fighting the ever new challenges to health care faced by the advancing modern world. However, questions remain: is it enough? Is it what the world really needs?

In contrast, Ayurveda has been deeply rooted in Indian culture and community, leading to it being practiced uninterruptedly over several centuries, during which, in spite of an adverse political situation, it has grown and even developed conceptually. This is because it has a wider, more holistic approach to health care management, emphasizing health promotion, and prevention of disease, properties that the modern system greatly needs. Indeed, for global health to address emerging health care challenges more effectively, a different stand with a broad vista vision should be adopted. An "Integrative Ayurveda" approach may offer it. As Shankar^[9] points out "this Ayurvedic pivot is likely to be inspired by an appreciation and sophistication of Ayurvedic theory and clinical practice rather than the

mere fact of Ayurveda being Indian."

INTEGRATIVE AYURVEDA

The definition and scope of "Integrative Ayurveda" can be represented as follows:

Definition

An active and open-ended interface of Ayurveda with advancing modern sciences especially biomedical sciences to continuously facilitate the incorporation of emerging new knowledge into mainstream Ayurveda, while maintaining fidelity to Ayurveda fundamental principles.

Scope

Such a heuristic approach would promote global acceptance of Ayurveda's "Science of Life" with the added ability to identify novel paths for biomedicine's further development.

The ethos of Integrative Ayurveda is to interpret and understand anything and everything related to human health in terms of Ayurveda basic concepts. In integrative Ayurveda, the foundational platform is Ayurveda, with bridges to all spheres of advancing knowledge, be they biomedical, technological or metaphysical. The expertise desired here is that of "Vaidya Scientist" who comprehends both *shastra* and science. [10] The goal is to grasp the "Nature of Man" and his full potential, with R and D activities revolving around understanding the synergy between systems biology and systems Ayurveda. [11] The path of integrative Ayurveda leads to harmony with nature in a symbiotic mode, eventually helping to maintain health and prevent occurrence of disease. See Table 1 for comparison between integrative medicine and integrative Ayurveda.

EPISTEMOLOGICAL VARIANCE

Ayurveda is a "codified" system of clinical science founded on basic principles with a logical superstructure. How it can be explored to understand disease and therapeutic approaches more deeply is illustrated here using the clinical condition of Arthritis/Sandhivata as an example

Table 1: Comparison between integrative medicine and integrative ayurveda

| Tenets | Integrative medicine | Integrative Ayurveda |
|-----------|------------------------------------|-------------------------------|
| Ethos | Therapeutic utility | Ayurvedic validity |
| Bridge | CAM remedies | Advancing knowledge |
| R and D | Understanding molecular mechanisms | Understanding systems biology |
| Goal | Molecules from natural products | Synergy with nature of man |
| Expertise | Physician-investigator | Vaidya-scientist |

to compare western and Ayurvedic approaches and their various advantages.

Etymologically "Arthritis" means inflammation in joints whereas "Sandhivata" means Vata in joints. Here, "Vata" epistemologically conveys a definite theory of knowledge, based on which it can be inferred that Sandhivata is a condition where pain is a characteristic clinical feature, and failure of joints would possibly be its eventual dreaded result. [12] It is interesting to note the differences on all levels when we compare the taxonomy, etiology, pathogenesis, pathobiology, and overall management of Arthritis and Sandhivata from their respective epistemological viewpoints [Table 2].

Modern medicine identifies as broad etiological factors of Arthritis, genetic predisposition, and environmental factors; for Sandhivata, Ayurveda regards host factors like "Agnimandya" (hypo functioning of Agni- "factors responsible for biotransformation") and "Apathya" (incompatible and contradictory diet and behavior) as more precisely pertinent. Genetic and environmental factors are perceived as not controllable, whereas "Agnimandya" and "Apathya" are considered correctable.

Systemic manifestations of immuno-inflammatory arthritis occur grossly due to immune complexes formed from antigen—antibody conglomeration, becoming lodged in synovium and other connective tissues, thus instigating release of proinflammatory cytokines leading to eventual systemic clinical manifestations. In Amavata (a major prototype of immuno-inflammatory arthritis) on the other hand, the important pathogenetic process is accumulation of "Ama" (toxic conglomeration), and aggravation of "Vata," further vitiate "dosha and dhatu," leading to release of "Amavisha" (toxic derivatives of Ama), which produces clinical manifestations. [13] This indicates "Ama" and "Vata" as major therapeutic targets.

The hallmark and ultimate outcome of untreated Arthritis is damage to cartilage and adjacent bones in the joints. However, when we understand "Asthi-Sandhi hanan," it is not merely indicative of joint damage; it also indicates Shleshak Kapha-kshaya (reduction in Shleshak Kapha), propensity to Asthidhatvagni vaishamya (imbalance of Asthidhatvagni), Asthivaha srotas dushti (functional and structural derangement in Asthivaha srotas), and Vatavimargagaman (deranged and diversified movement of Vata), ultimately resulting in total joint damage, which is considered a "madhyam-marga vyadhi," again indicating difficult to treat clinical condition. Hence, protecting "Shleshak Kapha" and normalizing "asthidhatvagni" are other important targets besides "Ama" and "Vata."

Table 2: Epistemological variance between arthritis and sandhivata

| Arthritis | Sandhivata |
|---|---------------------------------------|
| Denotes inflammation | Denotes pain and joint damage |
| Genetic predisposition/ environment | Agnimandya/apathya |
| Immune complexes | Ama accumulation |
| Inflammatory cytokines | Amavisha and vitiated dosha |
| Bone and cartilage damage | Asthi-sandhi hanan |
| Anti-inflammatory and immunosuppressive | Amapachak and vatashamak |
| Symptomatic and palliative | Sampraptivighatan and nidanparivarjan |
| Reparative and rehabilitative | Rasayana and apunarbhav |
| Reconstructive surgery | Mythological anecdotes |
| Patient education and group therapy | Satvavajay and daivavyapashraya |

The management approach for systemic immunoinflammatory disorders as per contemporary modern medical strategy is focused on anti-inflammatory and immunosuppressive agents, which are essentially symptomatic and palliative. In contrast, the Ayurvedic approach for its corresponding disease condition, focuses primarily on "Amapachan" (digesting and resolving "Ama") and "Vatashaman" (controlling and pacifying "Vata") which have the potential to arrest the progress of disease. Also, protecting Shleshaka Kapha and normalizing the asthidhatvagni function help to reverse the pathogenesis[14] In addition, Ayurveda advocates further strategies to rebuild damaged structure through Rasayana therapy (restorative and rejuvenative), and prevent recurrence through Nidan parivarjan (avoiding causative factors) by observing diseasespecific pathya (wholesome diet and behavior). Unique therapeutic modalities indicated in Ayurveda, such as Satvavajaya (enlightened and commanding state of mind) deserve more attention, [15] whereas Daivavyapashraya chikitsa (divine measures) which is almost overlooked demand attention with an open mind.

Practical difficulties in implementing Apunarbhava therapy (preventing relapse and recurrence) through classical Rasayana therapy and Nidan parivarjan or difficulties in adhering to Satvavajaya and Daivavyapashraya modalities could understandably lead to adoption of currently preferred modalities like reconstructive surgery, rehabilitation techniques, patient education modules, and group therapy. Integrative Ayurveda is open to such adaptations provided they are understood in terms of Ayurvedic basic concepts. Nevertheless, the above clearly illustrates the expanded vision of therapeutic possibilities open to Integrative Ayurveda that is lacking when modern medicine holds the central position.

CONCLUSIONS

Ayurveda and natural products continue to contribute to bridging the unmet therapeutic needs of mainstream medicine. Ayurveda can become a reservoir for developing Ayurveda inspired molecular medicines. Efforts of several decades of research and education in Ayurveda as well as integrative medicine approaches have certainly contributed a lot to its current emerging status. However, community patronage of Ayurveda is gradually increasing the world over. What is now desirable is to digress from the "utilitarian ethos" to a "unifying ethos." Merely developing pharma products from Ayurveda is not enough. It is essential to move on from products to underlying therapeutic principles, and from them to reach out to Ayurveda's fundamental philosophical axioms. Integrative Ayurveda in place of Integrative Medicine will facilitate such a movement more effectively. The health promotive, disease-preventive emphasis of Ayurveda and its bodymind-spirit inclusive holistic approach is essential to address future needs of achieving healthier, happier and harmonious global community.

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