

Emerging Potential of Nutraceuticals Related to Ayurveda

Present Limitations and Future scope
– A brief review

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Overview

- Nutraceuticals –some well-known facts
- Ayurveda – What is our perception?
- The Stake Holders
- Nutraceuticals and Ayurveda - current global scenario
- Contributors to the current global status of Ayurveda
- Emerging potential of Nutraceuticals based on Ayurveda
 - Example from Industry
 - Future

Nutraceuticals – some well-known facts

- Coined from 'nutrition' and 'pharmaceuticals' in 1989 by Stephan DeFelice
- Comprehensive term - includes foods, DS (as defined in DSHEA) and medical foods that have a health-medical benefit including the prevention and/or treatment of disease
- Regulatory status - centre of continuum between a food and a drug
- Reasons for attraction – Better safety, holistic approach

Ayurveda - What is our perception?

- हिताहितं सुखं दुखं आयुस्तस्यं हिताहितं ॥
मानं च तत्च यत्रोक्तं आयुर्वेदः स उच्यते ॥ ॥
- Embraces everything that *sustains, nurtures* and **MAINTAINS LIFE**
- Part of the principal medicinal system in India for centuries
- Defines and supports unique principle of “Swasthya Samrakshan” - prevention of diseases through maintaining health
- Provides equally effective therapeutic solutions - for a vast number of acute as well as chronic diseases

Ayurveda – Glimpse of brilliance – NOT so well known

■ Defining Health – holistic approach

सम दोषः समाग्निश्च सम धातू मल क्रीयः ।
प्रसन्न आत्मन्द्रिय मनः स्वस्थ इत्यभिधीयते ॥

■ Describing infectious diseases – modes of transmission

प्रसङ्गात् गात्र संस्पर्शात् निश्वासात् सहभोजनात् ।
एक शैय्यासनात् चाऽपि वस्त्रमाल्यानुलेपनात् ॥
ज्वरम् कुष्ठं च शोषश्च नेत्राभिष्यन्दमेव च ।
औपसर्गिका रोगाः संक्रामन्ति नरात् नरम् ॥

■ Verdict of incurability of disease – juvenile diabetes mellitus

जातः प्रमेही मधुमेहीनो वा न साध्य उक्तः स हि बीज दोषात् ।
ये चापि केचित् कुलजा विकारा भवन्ति तांश्च प्रवदन्ति असाध्यान् ॥

Ayurveda – Providing therapeutic solutions: Astounding wisdom of ancients

- Treating cough and cold: From complex herbomineral preparations such as *Kaphakunjara Rasa*, *Hema Garbha Pottali Rasa* etc., to the simple and readily available remedial measures such as -

रात्रिद्वयशिलाधूमपानात् कासश्रुतिः कुतः ।

सेवितं मधुस्रग्धाभ्यां चूर्णं मरिचजं यदि । किमर्थं क्रियते चिन्ता कासरवायुपराजितः ॥२॥

स्वरसं शृङ्गवेरस्य मादिकेण समन्वितम् । पायपेच्छयासकासध्नं प्रतिशयायककापहम् ॥३॥

हरीतकीकणाशुण्ठीमरीचगुडसंयुतः । कासघ्नो मोक्षकः प्रोक्तः परं चानलदीपनः ॥ १ ॥

Use of ginger, black pepper and turmeric

The Stake Holders

- Pharmaceutical industry
- Health care segment
- Government
- WE ALL

Nutraceuticals and Ayurveda

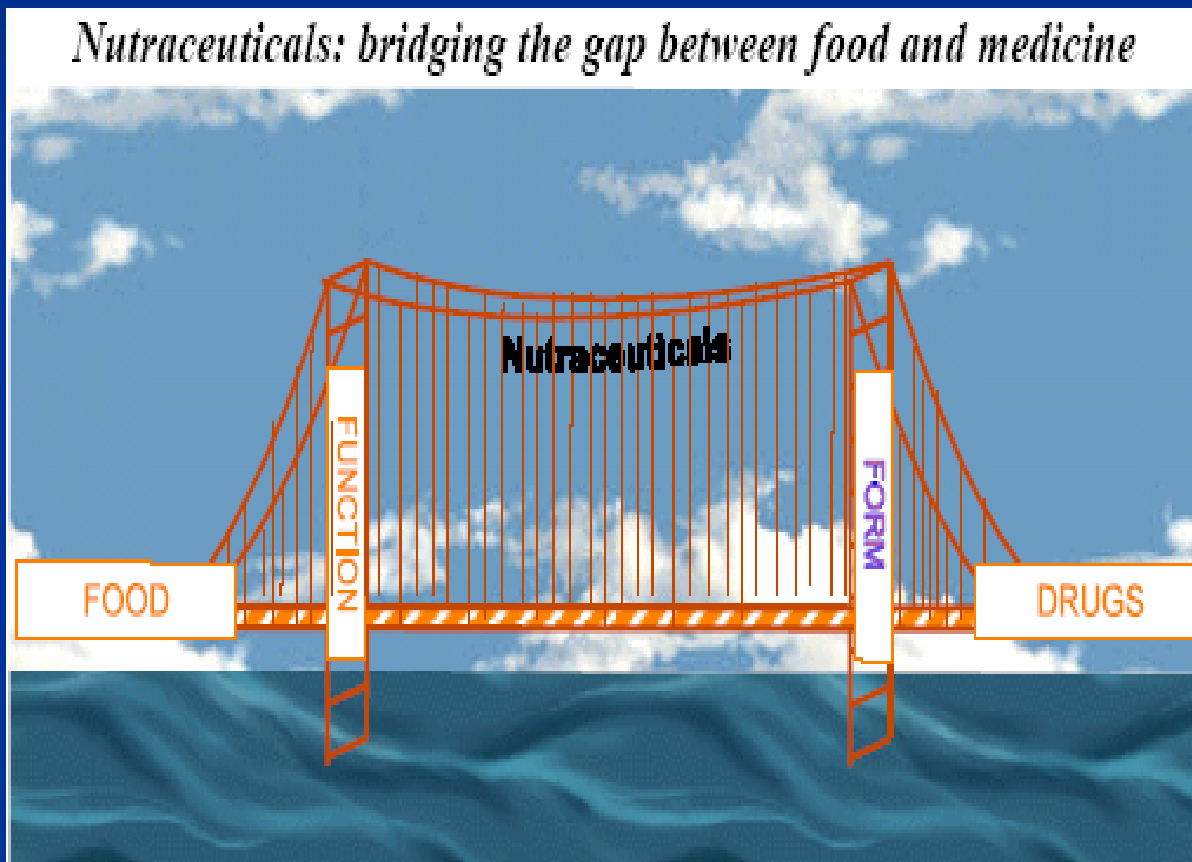
Current global scenario





Nutraceuticals Status

Nutraceuticals: bridging the gap between food and medicine





Ayurveda Status

- Traditional Indian system of herbal remedies
- System which talks about – Vaata / Pitta / Kapha / Aama / Prakriti
- Not recognized as medicinal system / DRUGS
- Inclusion in CAM – however, the products allowed to make **ONLY STRUCTURE FUNCTION CLAIMS**

Ayurveda – As CAM in Harrison's



The major East Indian traditional medicine system, utilizing pulse and tongue diagnosis; treatment includes diet, exercise, herbs, oil massages, and elimination regimens (utilizing emetics, diarrheals, etc.)

As per 2007 National Health Interview Survey - comprehensive survey of CAM use by Americans, more than 200,000 U.S. adults had used Ayurvedic medicine in the previous year!



Examples of CAM Modalities Now in Mainstream Medicine

Aushadh

- Digitalis for heart failure
- Quinine for malaria
- Artemisinin for malaria

Aahar / Vihar

- Low fat, low cholesterol diets –NCEP –III guidelines
- Exercise & Diet regimen for diabetes
- DASH for hypertension



Ayurveda – Contributors to the current global status

- Panchakarma
 - the state of Kerala
- Herbal preparations
 - industry – Paving path through stringent regulations, using to the best the work done by several researchers
 - government – Dept of AYUSH: major contribution
 - Indian herbal pharmacopoeia
 - Ayurvedic pharmacopoeia – reference databases
 - TKDL – an excellent initiative
 - ◆ quotable by the industry?
 - ◆ Acceptable to the global RA?
 - Educational institutes – offering courses for foreign students
- Science – Very COMPLEX. By and large, correlation to modern medicine still NOT available
- Herbomineral Preparations – GENERALLY NOT ACCEPTED

Acceptance of Ayurveda – MUST for emergence of better nutraceuticals

The way forward

Efforts required at various levels by ALL STAKE HOLDERS in terms of investments in –

- Better and continuous education / research
- More acceptance in terms of health care segment
- More revenue generation through
 - ⊙ Intervention and active role in acceptance of Ayurvedic products by global RA
 - ⊙ Spreading awareness in India as well as globally

Current potential of nutraceuticals based on Ayurveda

- In spite of so many limitations at present regarding awareness of Ayurveda globally, it continues to enlighten the present path for better health...through customized / tailor made / rather confined approach –

Example - Travisil Neo

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- ingredients well praised and well-documented in Ayurveda, yet
- simple and common enough to have global acceptance as food ingredients -
- requiring hardly any additional safety studies (the prime RA concern)
- industry to take care of other mandatory requirements such as GMP compliance, RM FP documentation, quality aspects

Travisil Neo

- Regulatory clearance in terms of composition in stringent regulated and other markets
 - EU –
 - ✓ Eastern Europe
 - ✓ Western Europe
 - USA (DSHEA)
 - SA
 - Russia / other CIS regions

Future - Our dream that can become a vision

- NOT to limit and confine Ayurveda to the current limited scope of nutraceuticals BUT to spread its awareness to the extent that it should be known as a path in itself
- Expanding the scope NOT ONLY of nutraceuticals BUT ALSO of MAINSTREAM MEDICINE to accept the glory of Ayurveda

Bibliography

- ✚ AAPS PharmSci. 2003 September; 5(3): 27–28. PMID: PMC2750935; American Association of Pharmaceutical Scientists 2003; Nutraceutical- definition and introduction; Kalra EK
- ✚ www.indianmedicine.nic.in/
- ✚ www.ayurvedinstitute.com/
- ✚ <http://www.tkdI.res.in/>
- ✚ *Yoga Ratnakara – Kaasa Chikitsa*
- ✚ *Charak Samhita – Sutra Sthanam*
- ✚ Harrison's Principles of Internal Medicine – 17th E
- ✚ NIH, NCCAM -Ayurvedic Medicine: An Introduction
- ✚ JNC – VII; The 7th Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure

Thank you

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