

Ayurveda and Scientific Support

It is not uncommon to encounter the health benefits of traditional remedies. For example, on a recent trip to Sri Lanka, and on the road to Kandy, I visited a herbal medicine garden. The plants growing there are purported to have a breadth of health benefits, Fig.1.

1. Sandalwood Powder	Used whilst cleaning teeth. Reduces bleeding of gums, mouth odor, tooth decay and tartar. Brightens teeth.	2. Citronella Cream	Applied to the skin, mosquito, and insect repellent.
3. Sandalwood Oil	Moisturizer, reduces wrinkles and dry skin pigment	4. Sandalwood Cream	For dry skin, removes blackmarks, Canaanite eczema
5. Kushtasamana herbal skin ointment (a syrup is also available)	For itching, neurodermatitis, psoriasis, enzymes, allergies, and herpes	6. Cinnamon Oil	For shivering cold, tooth pain, ear pain
7. Spice Balm (Medicinal plants)	Relief for headaches, dizziness, sinusitis, cough, cold	8. Herbal Wine (52 medi-clinical herbs)	Relief for debility, appetite
9. Red Oil with Herbal Balm (Sidharthathraya)	For severe rheumatism, lumbago, muscular pains	10. Aloe Vera Cream	Sun beam protection, against allergies
11. Green Oil (Harithasara Thyla)	For chronic migraines, sinusitis, headaches	12. Slimming set (Bee honey 52%, Lime extract 48%)	Weight reduction
13. Herbal Cough Syrup	Cleans the lungs, respiratory system, cures chronic bronchitis, dry cough, tonsillitis	14. King Coconut Oil	Healthy hair growth
15. Aginmoola Syrup	Herbal cure for hemorrhoids	16. Herbal Diabetes Tablets and Liquid	Improves absorption of sugar and starch
17. Herbal cholesterol Solvent	Cholesterol reduction	18. Herbal oil against Varicose Veins (Nahrodeepa Thyla)	Revitalize the valves of veins and normalise circulation
19. Herbal Gripe mixture	Relief to stomachaches and indigestion	20. Needra	Effective against the steepness
21. Kamayogi BonBon	Effective against pre-ejaculation	22. Lady tonic	Cures menstrual disorders including pain
23. Jasmine cream	Works against black spots, marks	24. Saffron cream	Works against wrinkles
25. Almond cream	Works against face wrinkles	26. Red coconut oil	Works against rough skin, pimples

Each of our blog posts and published books highlight the scientific support for wellness activities. So is there scientific support for herbal medicines, and more narrowly Ayurveda?

For pharmaceuticals, best practice is human clinical trials with randomized controlled trials (RCT) using either a placebo or active control.

In India, supplementary to the modern health system, there are over 70,000 registered practicing *vaidyas* with BAMS or MD Ayurveda qualifications. ⁽¹⁾ Vaidyas use preparations in either the *granthas* (authoritative texts) or proprietary Ayurvedic medicines (PAM) using a combination of Ayurvedic ingredients (*dravyas*), supplied by manufacturers.

Ayurveda practices are divided into Ayurvedic massage and Ayurvedic medicines. RCT studies exist in a limited number of cases, Fig.2.

Fig.2 Ayurveda: A limited number of scientific studies	
A. Classical/Granthas Products	
1	<i>Chyawanprash</i> , a common granthi recipe for colds, cough, stress reduction, general well-being. There is scientific support. ⁽²⁾
2	Arogyavardhini Vati for cardiovascular disorders. Research has found a significant reduction in total cholesterol, low-density lipoprotein, triglycerides, C-reactive proteins, and blood glucose. ⁽³⁾
3	Ayurvedic medicine versus methotrexate with respect to the treatment of rheumatoid arthritis: the Ayurvedic medicine was comparable to superior. ⁽⁵⁾
B. PAMs, often Marketed by Brands	
	Whilst some companies conduct RCT studies on their branded products, the quality of these research studies is generally opaque. ⁽¹⁾
C. Ayurvedic Therapies	
	There are more than 30 broad categories.
1	Abhyangam (whole body oleation) has been beneficial. ⁽⁶⁾
2	Shirodhara (pouring oil or liquids on the forehead for about 45 minutes) has neurological benefits. ⁽⁷⁾
3	Jaluka (leeching varicose veins) is now US FDA approval. ⁽⁸⁾

The reasons for a general dearth of RCT-based scientific research include:

- a) Ayurveda medicines have no patent protection, reducing the value of research findings.
- b) RCT studies are expensive.
- c) Ayurveda is more than a medicine, involving broader therapies, and it can become a way of life. ⁽⁴⁾

Testing a way of life is challenging.

Nonetheless, there is a considerable body of evidence, accumulated in India over the centuries. Whilst not to RCT standards, it is currently available only in Sanskrit, and is largely offline, i.e. not digitalized.

However, the last twenty years have seen extensive research into the ingredients used in either classical, granthas products or proprietary Ayurvedic medicines (PAM), i.e. the Ayurvedic herbs.

Fig.3 Ingredients/Dravyes, i.e. the Ayurvedic herbs	
1	Indian Council of medical Research (ICMR) produces reviews on “Indian Medicinal Plants” detailing comprehensive scientific data. ⁽⁹⁾ More than 600 plants have been covered. ⁽¹⁰⁾
2	Indian Pharmacopoeia has 160 monographs on herbs, extracts, and products. ⁽¹¹⁾
3	Ayurveda Pharmacopoeia has quality specifications for 650 plants. ⁽¹⁾
4	American Botanical Council has thousands of summaries and critiques.
5	Turmeric alone has over 2,300 scientific research papers. ⁽¹⁾

In conclusion, there appears to be extensive evidence in India which will become progressively available in English and online over the coming years. In combination with more RCT-based studies, Ayurveda is expected to remain a topic of considerable interest.

References:

1. *Ayurveda: (W)here is the evidence*, by D B Anantha Narayana, Sharanbasappa Durg, 2020
2. *Chyawanprash from vedic to Genomic Era*, by Ojha J, 2003
3. *Safety and efficacy evaluation of Ayurvedic treatment (Arjuna powder and Arogyavardhini Vati) in dyslipidemia patients: a pilot prospective cohort clinical study*, by Kumar G., Srivastava A., Sharma S.K., Gupta Y.K., 2012
4. *Ayurveda: Ancient wisdom for moderate wellbeing*, by Goeta Vara, 2018
5. *Double-blind, randomized, controlled, pilot study comparing classic ayurvedic medicine, methotrexate, and their combination in rheumatoid arthritis*, by Furst D.E., Venkatraman M.M., McGann M., Manohar P.R., Booth-LaForce C., Sarin R., 2011
6. *Pilot study investigating the effects of ayurvedic abhyanga massage on subjective stress experience*, by Basler A.J., 2011
7. *Using a healing robot for the scientific study of shirodhara. Altered states of consciousness and decreased anxiety through Indian dripping oil treatments*, by Uebaba K., Xu F.-H., Tagawa M., Asakura R., Itou T., Tatsuse T., 2005
8. US Food and Drug Administration, 2020. Product classification: leeches, medicinal. <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPCD/classification.cfm?ID=NRN>
9. *Indian Council of Medical Research (Reviews on Indian medicinal plants)*, by Indian Council for Medical Research. vol. 22, 2020.
10. *Indian Council for Medical Research, vol. 19 (Quality Standards of Indian medicinal plants)*, by Indian Council of Medical Research, 2020.
11. Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare G of I. *Indian Pharmacopoeia*, 2018. Herbs, processed herbs, and herbal products; pp. 3165–3283.
12. American Botanical Council, 2020. Welcome to HerbClip online. <http://cms.herbalgram.org/herbclip/index.html>