

EDITORIAL

The human gut microbiome: A meeting place for ayurveda and modern medicine

Ayurveda and modern medicine represent two formulations of the reality behind the same phenomenon with respect to human existence; maintenance of health and the management and cure of disease. These two formulations (medical systems) are rooted in two fundamentally different knowledge systems. Modern medicine is rooted in the reductionist approach of modern science, based on the concepts of physics, chemistry and biology. Ayurveda is rooted in the holistic approach of the Indian Knowledge system, based on the concept of the *Panchamahabhuta*. The *Panchamahabhuta* refers to the five 'elements' of space, air, fire, water and earth, which are considered the fundamental constituents of all manifested reality.

Ayurvedic treatments for various diseases are based on diet, medication and practices. Particular emphasis is given to diet, specifying foods that should or should not be consumed. Many therapeutic regimens commence with purgation treatments. It is apparent that modulation of the gut microbiome can be one of the outcomes of these treatment modalities. One of the most interesting

areas of research in modern medicine currently is the gut microbiome-immune system-brain axis. The manifestations of a variety of diseases ranging from psychiatric illness, Alzheimer's disease, cardiac disease, cancer and skin diseases to autoimmune diseases such as multiple sclerosis are being investigated for their interconnection with the gut microbiota.

The acknowledged applicability and relevance of both Ayurveda and modern medicine in many areas relating to health and disease pose the intriguing question of how the basic concepts of each formulation relate to one another. While Ayurveda does not refer to the gut microbiome, it uses the concept of *Agni* (fire), the energy that powers all physical functions, particularly digestion. It governs not only digestion, absorption and metabolism, but also all physical functions and mental and emotional processes. Thus, interpretation of Ayurvedic clinical practice in terms of the gut microbiome-immune system-brain axis, where applicable, can potentially yield valuable insights to both systems of medicine.

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