Ayurvedic bioenhancers: A classical and contemporary review

Sathyanarayana B
Muniyal Institute of Ayurveda Medical Sciences, India

Herbal bioenhancer is an agent of herbal origin or any phytomolecule which is capable of enhancing bioavailability and bio-efficacy of a particular drug or nutrient with which it is combined without any typical pharmacological activity of its own at the dose used. Maximizing bioavailability is therapeutically important because the extent of bioavailability directly influences plasma concentrations and consequently therapeutic efficacy. Bioavailability enhancement can make the expensive drugs affordable and reduce the toxic effects by reducing the required dose of drugs. A bioenhancer may act by different mechanisms like promoting the absorption of the drugs from gastrointestinal tract, inhibiting or reducing the rate of biotransformation of drugs in the liver or intestines, modifying the immune system in such a way that the overall requirement of the drug is reduced substantially, etc. Ayurveda the science of life is based on highly scientific principles. The one of the oldest system of medicine, Ayurveda is momentous in audience of worldwide on virtue of its holistic approach of life. Ayurvedic pharmaceutics is highly advanced explaining over ten thousand formulations under different categories like Kashaya, Vati, Asava-arishita, Avaleha, Paka, Khanda, Bhasma, Pishiti, etc. Formulations of Ayurveda consist of substances of herbal, mineral/metal and animal origin which are processed pharmaceutical to have therapeutic effects. Ayurveda explain different processes to enhance the bioavailability of the drugs, e.g., Bhavana, Marana (to produce incinerated products containing nano particles), Snehapaka (to form oleaginous products akin to liposomes), Ksheerapaka, etc. It also explains the concepts like Yogavahi, drugs like Pippali (Piper longum), Shilajatu, Kajjali, Honey, Ghee, etc., that are scientifically established as bioenhancers. Current presentation throws a light on various processes and drugs in Ayurveda improving bioavailability. Their role in the design and development of formulation also will be discussed.

Biography
Sathyanarayana B is MD in Ayurveda in Bhaishajya Kalpana (Ayurvedic Pharmaceutics) from IPGT and RA, Jamnagar. He is currently working as Principal in Muniyal Institute of Ayurveda Medical Sciences, Manipal. He is also working as Research Executive and MR for ISO in Muniyal Ayurveda Research Centre. He has teaching, research, pharmaceutical and clinical experience of 14 years and administrative experience of five years. He has presented more than 40 papers as resource person in various national and international conferences, besides chairing the scientific sessions. He has over 20 publications across various national and international journals besides being a Reviewer for three indexed international journals.

Notes: