

Nutraceutical and medicinal foods

Prakash Kondekar

Royal Society of Health, UK

Abstract

Treatment and/or prevention. Food tablet is described as unit dose, temper evident, solid preparations including one or more active ingredients or whole food powder. Patient and/or consumer demand, routes of drug delivery, oral utilization capacity, the flexible design of dosage forms as technical manufacturing parameters has been considered; also the bulk density (g/ml), the tapped density (g/ml) as pre-compression parameters have been confirmed while thickness (mm), hardness kg/cm², % weight variation, % friability, % in- vitro drug release as post-compression (parameters have been carried out as physiochemical properties. The powder blend has been thoroughly mixed with talc and magnesium stearate and compressed into a 300-400 mg tablet using single rotatory punching machine based on tablet processing strategy. Among the trial /serial tablet formulations; "miser effervescent tablet" could be more efficacious owing to majorly cinnamaldehyde (as v/v) whereas "black mulberry effervescent tablet" could be more beneficial due to the presence of moracin and aligning phenolic anticarcinogenics and also "mandarin peel effervescent tablet" could be salutary because of its naringenin and hesperidin flavanone phenolic bioactive. In this keynote workshop presentation content, the innovative and conventional food tablet processing strategies has been given with discussed chemical characterization, functional properties,

their unique bioactive features, ant oxidative, ant carcinogenic reports of above- mentioned developed tablets. Eating habits have a great impact on humans' health, environment, industry, and economy. In recent years, new topics in food research, such as [nutraceuticals](#), functional foods, and food supplements, have emerged to mitigate health problems, especially those pertaining to metabolism and the gastrointestinal tract. Although the intimate mechanisms by which nutraceuticals, functional foods, and food supplements may improve the health of consumers are widely unknown, the potential of such products in supporting health and the development of efficient alternative therapies for numerous severe diseases is of great significance and supported by numerous studies and empirical observations. The purpose of this manuscript is to introduce, define, and briefly discuss types of nutraceuticals, functional foods, food supplements, and medicinal foods, highlighting their potential impact on consumers' health. The recent era is witnessing evaluation of medicinal and nutritional value of fruits and fruit juices for the management and prevention of brain diseases like headache stress, anxiety, hypertension, and Alzheimer's and Parkinson's diseases by the scientists and researchers worldwide. Fruits possess various chemicals such as antioxidants and polyphenols, which reduce and balance the effect of hormone in brain responsible for brain disease. Natural remedy is cheap, easily available, nontoxic, and easy to prepare and provides

good mental health as compared to other remedies. The main objective of this review is to acknowledge medicinal benefits of fruits for the cognition and management of brain disease. Nutraceutical products can be considered non-specific biological therapies used to promote general well-being, control symptoms, and prevent malignant processes. The term “nutraceutical” combines the two words of “nutrient,” which is a nourishing food component, and “pharmaceutical,” which is a medical drug. The name was coined in 1989 by Stephen DE Felice, founder and chairman of the Foundation for Innovation in Medicine, which is an American organization located in Cranford, New Jersey. The philosophy behind nutraceuticals is to focus on prevention, according to the saying by a Greek physician Hippocrates (known as the father of medicine) who said “let food be your medicine”. Their role in human nutrition is one of the most important areas of investigation, with wide-ranging implications for consumers, healthcare providers, regulators, food producers, and distributors. Breakthroughs in technologies are leading the way in the development and recognition of value-added commodities and processed foods, genetically engineered foods, ingredients of significant health value, medical foods, foods for special dietary use, dietary supplements, phytochemicals, herbal products and nutraceuticals, and their linkage to health and disease. This timely realization connects in part with the fact that one in three Americans are using some form of alternative and complementary/adjunct therapy. This trend has brought a tremendous increase in the number of products with perceived or anecdotal evidence of potential health and medical benefits and has led to major concerns about consumer safety and fraudulent claims. Nevertheless, the dramatic shift in consumer readiness, combined with increasing eagerness to save health care costs, has become an important issue for policy makers,

regulatory bodies, scientific and medical communities, and companies, to make sure that appropriate measures are taken for documenting science-based, product-specific health claims. This commentary highlights key issues of product safety, efficacy, health claims, and regulatory barriers that must be addressed objectively as a new industry evolves from this powerful consumer trend. In recent years, a new diet health paradigm is evolving which places more emphasis on the positive aspects of diet. The new lifestyle adopted by people today has changed the basic food habits of the latter. Consumption of the junk food has increased manifold leading to a number of diseases caused due to improper nutrition. Obesity is now recognized as a global issue. Heart disease continues to be a primary cause of death in most of the developing countries worldwide, followed by cancer, osteoporosis, arthritis and many others. Consumers being frustrated with the expensive, high-tech, disease-treatment approach in the modern medicines are seeking complementary or alternative beneficial products and the red tape of managed care makes nutraceuticals particularly appealing. “Let food be thy medicine and medicine be thy food”, quoted by Hippocrates about 2,500 years ago is certainly the tenet of today. Nutraceuticals are the emerging class of natural products that makes the line between food and drugs to fade (Adalja and Schilling [1999](#)). Although the use of nutraceuticals by people has a long history, only recently scientifically supported nutritional and medical evidence has allowed nutraceuticals to emerge as being potentially effective (Dillard and German [2000](#)). The nutraceuticals of both plant and animal origin holds exciting opportunities for the food industries to create novel food products in future. Nutritional studies are now focusing on the examination of foods for their protective and disease preventing potential (Nicola et al. [1999](#)), instead of

negative attributes such as micro-organism count, adulterants, fatty acids and inorganic pollutant concentration (Kaur and Kapoor 2001). The aim of this review is to focus on the general concept and the health-promoting effects of several nutraceuticals that have the potential of being incorporated into foods.

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