Abstract

Natural products have received much attention as a source of bioactive substances, with this view the present study was aimed for profiling anti-diabetic compounds in Benincasa hispida for anti-diabetic effects and its complications. Diabetes mellitus has become a major public health and economic problem across the globe. DM affects a population of approximately 424.9 million adults aged 20-79 worldwide in 2017. Benincasa hispida synonyms are Cucurbita hispida thumb, belongs to curcurbitaceae family, commonly known as white pumpkin. In India white pumpkins are mostly used for auspicious function and in traditional food preparation. But the fruit has vast nutritional values with essential phytochemicals volatile oils, flavonoids, glycosides, saccharides, proteins, carotenes, vitamins, minerals, β-sitostesin and uronic acids. In the present study, chemical profiling in peals, seeds and pulp extracts were investigated. A comprehensive profiling in peel, seed and pulp extracts individually using HPLC-QTOF-MS/MS analysis and would reveal the active compounds. Differential inhibition of α-amylase and α-glucosidase activity observation in response to polarity of extract, cultivar and tissue type. These results would suggest that the consumption of white pumpkin may have potential health benefits to manage diabetes.

Biography

M. Jayanthi has completed her PhD at the age of 30 years from Bharathiar University, Tamil Nadu India. She is the Assistant Professor of Vels University, Chennai. India. She has 9 publications that have been cited over times, and her publication H-index is 20 and has been serving as an editorial board member of reputed Journals.