Total flavonoids content and biochemical screening of the leaves of tropical endemic medicinal plant Merremia borneensis

Abstract

The developing and under developed countries mostly rely on traditional medicines. This herbal or traditional medicine involves the use of different types of organic extracts or the bioactive chemical constituents. This type of biochemical investigation provides health care at an affordable cost. This survey such as ethnomedicine keenly represents one of the best avenues in searching new economic plants for medicines. Keeping this view in mind, the present study is carried out in Merremia borneensis leaves of University Malaysia Sabah, Sabah, Malaysia. The plant has several beneficial properties, such as antioxidant activity. The dry powder of the leaves of M. borneensis was extracted with hexane, ethyl acetate, chloroform, butanol and aqueous ethanol. The flavonoids content of the extracts was determined by Willet method. The flavonoids content of the extracts as quercetin equivalents was found to be highest in aqueous ethanol (53.28%) followed by chloroform (38.83%), ethyl acetate (24.51%), butanol (12.54%) and hexane extract (3.44%). The results suggest the presence of phytochemical properties in the leaves, which are used in curing the ailments.