

ETHNOBOTANY OF MEDICINAL PLANTS IN TREATING DIABETES MELLITUS AMONG INDIGENOUS MEDICAL PRACTITIONERS IN JAFFNA, SRI LANKA

P.N. Niluka, S. Sathya and S. Srikokulan*

Department of Pharmacy, Faculty of Allied Health Science, University of Jaffna, Jaffna, Sri Lanka.

**ssinthujah@univ.jfn.ac.lk*

Diabetes mellitus (DM) is a non-communicable metabolic disease which is caused due to inappropriate elevation of blood glucose levels due to the impairment of insulin synthesis or utilization. The usage of medicinal plants for managing DM differs according to geographical and cultural differences. Ethnobotany is essential to preserve the knowledge of medicinal plants and to discover new chemical entities for treating diseases. Therefore, this study aims to describe the ethnobotany of medicinal plants used in treating DM among indigenous medical practitioners (IMP) in the Jaffna district, Sri Lanka. A cross-sectional descriptive study was conducted among all 31 registered IMPs in the Jaffna Divisional Secretariat (DS). The data was collected using a validated and structured interviewer-administered questionnaire. Descriptive statistics were used to generate the summary of the data gathered. Family Important Value (FIV) indicates the value of a biological plant taxon, whereas Related Frequency Citation (RFC) means the citing percentage of informants for every species. FIV and RFC were calculated to quantitatively determine the common consent between the informants on using endemic medicinal plants in the DS district. The response rate was 87%. A total of 72 species belonging to 47 families have been reported by the 27 respondents from the Jaffna DS. Among them, *Syzygium cumini* (16) was stated as the species with the highest RFC value (0.59), and Myrtaceae (24) was the most dominant family with an FIV value of 88.88. Among the reported medicinal plants 33.3% were trees, while 33.3%, 23.6%, 8.3% and 1.4% were shrubs, vines, grasses, and runners, respectively. Leaf (31.63%) was the most used part for the herbal preparations. The survey also indicated that the powdered form (77.58%) was the most preferred form among the preparations. These findings facilitate the documentation and conservation of medicinal plants used for DM by the IMP in the Jaffna DS, Sri Lanka, and allow the phytochemical screening and identification of antidiabetic active compounds.

Keywords: Diabetes mellitus, Ethnobotany, Indigenous medicine practitioners, Jaffna divisional secretariat