ABSTRACT

India is a land of diverse cultures and traditions with rich heritage and lineage influenced by Moguls, Dutch, Portuguese and the British. Thus our medical system is also influenced by these diverse cultures and ethnic backgrounds. Ayurveda is an ancient system of medicine of Indian subcontinent. Today in India, Nepal, and Sri Lanka, ayurveda is used by a number of people and is also gaining popularity in the west. Unani system of medicine (unanipathy) originated in Greece, based on the principles propounded by Galen, a Greek practitioner and was called Galenic. After him many Arab and Persian scholars enriched the system and developed Unani-Tibb. Now it has become an integral part of Indian traditional system of medicine. Using plant sources for illness has been a practice as old as mankind. But the major lacuna for all these medical systems is lack of proper scientific evidence. Hence the present study was aimed as a small step towards explaining of particular selected ayurvedic, unani and herbal drugs. Drugs were selected for two chronic central nervous system disorders, namely, epilepsy and depression for establishing their efficacy in accordance with modern scientific system namely, allopathy. The drugs were chosen after consultation with the practitioners of the respective medical systems. The drugs selected for testing their efficacy in epilepsy were Panchagavya Ghrutham (ayurveda), Hab-e-Jund (unani) and Cynodon dactylon (herbal medicine). The drugs selected for testing their antidepressant activity were Kushmanda Lehyam (ayurveda), Itrifal Kishneezi (unani) and Barleria cristata (herbal drug). The formulations were used as received and methanolic extracts
were prepared for the herbal drugs. All the drugs were subjected to preliminary phytochemical screening followed by acute toxicity studies following OECD guidelines. All the drugs were then tested for their neuropharmacological profile using Irwin’s procedure as described in Turner’s book of Pharmacological evaluation of substances. From the results of these studies sub-lethal doses were selected to proceed for their respective activities. All the drugs were also tested for their antioxidant activity using DPPH• scavenging activity and metal chelating activity. The animal models used for testing the antiepileptic activity were maximal electroshock, pentylenetetrazol, lithium-pilocarpine and strychnine induced convulsions in mice. The animal models chosen for testing the antidepressant activity were despair swim test, tail suspension test (both after acute and chronic administration of drugs) and apomorphine induced hypothermia in mice. Preliminary phytochemical screening showed the presence of phenolic compounds and flavonoids. The results from the above tests indicated their wider therapeutic index (from acute toxicity studies), their antioxidant activity and neuropharmacological profile. The results from antiepileptic and antidepressant activity of the drugs suggested the greater potential of these alternative systems of medicine.