Abstract

Background: Phytopharmaceuticals have long been used as official medicine in different countries around the world. In Mexico, they were recently introduced. One of the most prescribed phytopharmaceuticals is derived from the Hypericum perforatum species. This plant, commonly known as St. John’s Wort, is widely used in traditional herbal medicine for wound healing and as an antidepressant. Several clinical and pharmacological works have demonstrated the efficacy and safety of extracts prepared from the aerial parts of this plant in the treatment of mild to moderate depression. This activity has been attributed to hyperforin, hypericin and flavonic compounds. For many years, the naphtodianthrone, hypericin, was considered as the main active constituent. Nevertheless, it has been demonstrated that the acylphloroglucinol, hyperforin together with hypericin and some flavonic compounds are the active antidepressant compounds. Since depressive disorders are very common in clinical practice, with approximately 11.3% of all adults being afflicted by these disorders during any one year, different preparations of St. John’s Wort are available as phytopharmaceuticals and dietary supplements in different countries, including Mexico. Methods: In order to compare different phytopharmaceuticals and dietary supplements containing H. perforatum extract available in Mexico, the total content of hypericin and hyperforin was determined. Three products were purchased in pharmacies as phytopharmaceuticals (S1, S2, S3), while four products were available as dietary supplements (S4, S5, S6, S7). Results: Phytopharmaceuticals were found as coated tablets or gelatin capsules with individual packing in aluminum blisters, while dietary supplements were all found as uncoated tablets in glass or plastic bottles. With the exception of one product (S4), in all samples detectable amounts of hypericin were found. Products S2, S3, and S7 had a higher hypericin content (between 0.2% and 0.26%). Most of the samples analyzed had no detectable amounts of hyperforin. The products S1 and S7 contained only trace quantities of hyperforin, while products S2 and S3 had the highest amount with more than 4.0% and 2.5%, respectively. Conclusions: Although all of the products studied contained the extract of H. perforatum as a main constituent, there were marked differences between them. It was observed that the formulation (coated tablets) packing (individual packing in aluminum blisters) and active constituents content (hypericin and hyperforin) of the phytopharmaceuticals differ significantly from that of the dietary supplements.
Keywords

Hypericum perforatum, hyperforin, hypericin, phytopharmaceutical, dietary supplement, complementary medicine, antidepressant.