Chemical and Biological Studies on Devil’s Claw (*Harpagophytum Procumbens*) Capsules Officially Registered in Saudi Arabia

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Plants have been used in traditional medicine for several thousand years. In the world today, medicinal plants still serve as an integral part of primary health care in various countries, while in the others they are known to contribute in providing strong basis for the maintenance of good health. In the industrialized countries the increasing reliance on medicinal plants led to the extraction and characterization of medicinally important compounds, which are used for the development of several drug products and chemotherapeutics. *Harpagophytum procumbens* DeCandolle (Family: Pedaliaceae) also called Devil’s claw, is one of the most popular medicinal plant. It is native to south and southwestern Africa, Kalahari deserts, Namibia and Island of Madagascar. The secondary storage roots, or tuber, of the plant are used in the treatment of low back pain, osteoarthritis, rheumatoid arthritis, diabetes, joint and muscular pain, as tablets. It is marketed world-wide as Devil’s claw capsules and other pharmaceutical dosage forms. Several chemical compounds were isolated from Devil’s claw and their biological activities were investigated. The iridoid derivative, harpagoside was found to be one of the major biologically active compound of this plant. Harpagoside is used as a marker compound in the quality control of different industrial preparations of Devil’s claw. It is worth mentioning that Devil’s claw is officially recognized by the MOH Saudi Arabia, Medicines and Healthcare Products Regulatory Agency (MHRA), British Herbal Pharmacopoeia, and European Commission E.

Devil’s claw is an established natural remedy for the treatment of several diseases for centuries. Devil’s claw capsules purchased from local market in Riyadh (Saudi Arabia) were stored for 24 months under different climatic condition for stability studies. The samples were with-drawn after each 6 months, and all officially defined quality control tests specified in European Pharmacopoeia and manufacturer’s files were conducted to understand the physical, chemical, and microbiological stability of the drug product. A thorough literature review revealed that there was a dearth of toxicity studies on Devil’s claw capsule. Hence, the present study was designed to provide a comprehensive report on the quality, stability, and toxicity of Devil’s claw. The results of our findings will be presented in detail.