

2nd International Conference and Exhibition on Pharmacognosy, Phytochemistry & Natural Products

August 25-27, 2014 DoubleTree by Hilton Beijing, China

Phytochemical profiling and quality control of *Hypoxis* raw materials and products by RP-UPLC-MS and HPTLC

Bassey K N, Combrinck and S Viljoen A M
Tshwane University of Technology, South Africa

Hypoxis hemerocallidea (Hypoxidaceae) is a traditional medicinal plant widely used in Southern Africa. The pharmacological properties of commercial products from *Hypoxis* against diseases like benign hypertrophy (BHP) are associated to rooperol, the aglycone of hypoxoside is the major phytoconstituent of the *Hypoxis* genus. Sterol(in)s are the other compounds responsible for anticancer and immune boosting properties of this plant. Several *Hypoxis* species are hitherto identified only on the basis of morphology and similarities thereof has led to interchangeable use of different species for the treatment of the same disease by traditional healers (sangomas). Although it was qualitatively postulated from HPLC analysis that flavanoids, triterpens and so forth are present in *Hypoxis hemerocallidea*, there is only one chemical profiled, that indicated the co-occurrence of hypoxoside, dehydroxy hypoxoside and bis-dehydroxy hypoxoside in *Hypoxis hemerocallidea*. We investigated the chemical profiles of 8 medicinal *Hypoxis* (n=105) species and the quality of 14 commercial products using RP-UPLC-MS and HPTLC in an attempt to redress the impending problem of unsafe and low quality products. Results obtained indicated that 6 other secondary metabolites (orcinol A glucoside, curculigoside, curculigoside C, apiofuranosyl curculigoside, arueaside B and stigmasterolin) are present between 0.00 to 5.00% mg-1 dw plant material. Out of 14 commercial products with hypoxoside and/or sterol(in)s on their labels, only 3 contained hypoxoside and/or stigmasterolin between 0.02% to 3.12% mg-1dw. A through scrutiny and validated quality control protocols is indispensable to regulate the numerous commercial products of *Hypoxis* that floods both the Southern Africa and international markets.

Biography

Bassey K N is at the final stage of submitting his PhD thesis for a pharmaceutical sciences degree. He obtained his Master degree in chemistry (organic synthesis) at the age of 36 years from Tshwane University of Technology. He presented at the 11th Frank Warren and 2013 Indigenous Plant Use Forum (IPUF). He has about 5 articles under review for publications.

basseykn@tut.ac.za