

Herbal Compositions for Appetite Suppression and Weight Management

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Editorial

Volume 1 Issue 2

Received Date: July 12, 2016

Published Date: July 15, 2016

DOI: 10.23880/doi-16000110

Editorial

Obesity and its co morbidities continue to challenge the world at an alarming rate. In recent years it has been reported that obesity and its metabolic complications will cause both substantial socio-economic and physical burden on society [1]. It is widely recognized as the largest and fastest growing public health problem worldwide affecting both adults and children. For example, a recent pooled data from 186 countries for the duration from 1975 - 2014 showed obese people worldwide had risen from 105 million in 1975 to 641 million in 2014 [2]. The research also found that more obese men and women now live in China (43.2 million men and 46.4 million women) and the USA (41.7 million obese men and 46.1 million obese women) than in any other country. It is often caused by an imbalance between energy intake and expenditure which mainly complicated by a much more sedentary lifestyle associated with easy access of palatable energy dense diet rich in fat, sugar and salt. If untreated, it can lead to diabetes, hypertension, stroke, dyslipidemia and others more deleterious complications [3].

Despite the fact that the long term solution for obesity lies on lifestyle changes in the form of dieting and exercise, interventions are required for those who already are obese. While maintaining an optimum bodyweight seem a sound solution to counteract obesity, for most individuals achieving a life style modification becomes an uphill battle once they are obese. At this point, pharmaceutical drugs are considered potential adjunctive treatment to lifestyle modification. The conventional pharmaceutical drugs are considered the primary choices and generally effective to slice the excess weight. However, for most, besides being too expensive, the long

term uses of these drugs are marred by their severe adverse toxicities. In fact, the principal reason for drug withdrawals has been due to concerns over safety rather than the effect on body weight. For example the withdrawal of Accomplia (rimonabant), appetite suppressant acting as cannabinoid (CB1) receptor antagonist due to the risk of psychiatric side effects, including depression, sleep disorders, anxiety and aggression in 2008; and the suspension of the use of another appetite suppressant, sibutramine, a monoamine reuptake inhibitor as a result of increased risk of serious, non-fatal cardiovascular events such as stroke, heart attack in 2010 are some of the disappointing trends of obesity drug development [4]. In addition, the current anti-obesity pharmaceutical drugs such as Orlistat (Xenical®/Alli; gastric and pancreatic lipase inhibitor, FDA approved 1999) [5], lorcaserin (Belviq®; FDA approved 2012, a potent and selective agonist of 5-HT2C receptor marketed for appetite suppression) [6] and Qysmia (phentermine-asymptomimetic amine anorectic and topiramate extended release- an antiepileptic drug, FDA approved 2012) [7] cannot be the magic "cure all" solution and are not without associated side effects. As a result, there remains significant unmet need for the discovery of safer weight management alternatives delivering superior efficacy. Acknowledging the intricate nature of obesity and its comorbidities, future treatment strategies may rely on the use of combination therapy of two or more active compounds to address the multiple pathways involved in obesity. In effect, the use of Qysmia, the cocktail of phentermine, a sympathomimetic amine anorectic drug and topiramate, an antiepileptic drug for weight loss could be considered as a good example for this strategy. In this regard, herbs with a long history of use are less likely to produce severe toxicity and might be effective in reducing appetite and promoting significant

weight loss. Herbal compositions with diversified components and characteristics may lead to compounding effects in moderating metabolic disorders by intervening at multiple pathways that signify the merit of their combination for weight management and/or appetite suppression. Therefore, a natural product based intervention could be an inexpensive and relatively safer substitute to combat obesity and aid healthy weight management [8].

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