Safety, Efficacy and Metabolism of Traditional Medicinal Plants in the Management of Obesity: A Review

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Abstract—Obesity is an important global health concern, and is associated with high morbidity and mortality rates. Modern methods of treatment, such as synthetic drugs and surgery, still have to be improved to show safety and efficacy. The main concerns with such treatments are the high costs and serious complications. As a result, there is great interest in the use of plant-based medicinal agents as an alternative therapy. This study aims to provide a review of the studies on accessible botanical sources for the treatment of obesity. Based on published studies, this review attempts to explain how these medicinal plants act in humans to cause weight loss, and which method of usage is safer and more efficient. Information was gathered from books, journals and electronic sources published in the period of 1991 to 2012. The medicinal plants studied can reduce weight through five basic mechanisms, including stimulating thermogenesis, lowering adipogenesis, enhancing lipolysis, suppressing appetite, and decreasing the absorption of lipids. Furthermore, consumption of reliable medicinal plant extracts in a single form and at an optimum dosage could be a safe treatment for obesity. However, based on reviews, some combinations of certain medicinal plants may result in either lower efficacy or cause unexpected side-effects.

Index Terms—Anti-obesity, fat absorption, slimming aids, dietary supplements

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