

Evidence based Unani basic factors that would effective on the management of obesity in this new era

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Abstract

Researchers have identified three main causes of obesity and they include genetics, overeating and lack of exercise. The effects of obesity have a huge impact and can range from low self-esteem to increased risk of cardiovascular diseases. Though the causes were found and many programs have been conducted, the obesity is still a challenging problem all over the world. Therefore, the objective of this study was to identify cause/s of obesity in ancient Unani concept through the modern interpretation. Avicenna mentioned in 'Canon of Medicine' that functional disorder in the Natural faculty (*Quwat e Tabai'yya*) is one of the main causes for the obesity. According to Unani so called 'Natural faculty' governs digestion, metabolism, nutrition and growth of the body. A functional disorder in the natural faculty may occur due to weakness in the organs of natural faculty or due to emotional disturbances like anger, envy like emotional disturbances etc. A systematic search was carried out using many ancient texts about concept of obesity. Further, search was done in scientific research journal articles about the herbs used to reduce weight. Articles in 61 journals were cited in the systematic reviews but seven were excluded. 58.3% research done on animal, 33.3% research found on humans and another 8.3% was on the literary review of the anti-obesity herbs.

These researches revealed that there was a significant reduction of weight found after the herbal treatment on the obese mice or obese human. Review exposed that 95.8% herbs possess the action of strengthening the Natural faculty or gastro intestinal tract (GIT). Out of this 54.2% of herb had the action of carminative effect on GIT and 45.8% herb had the actions of carminative and strengthening effect on GIT. Hence it was concluded that in while treating obesity, a special attention should be focused to enhance the right functions of the natural faculty by carminatives medicines such as cumin etc.

Key words

obesity, causes, natural faculty, herbal therapy, carminatives,

Introduction

Obesity is a widespread and serious medical problem all over the world. The World obesity status report (2010) mentioned that one in 2 adults is currently overweight and 1 in 6 is obese. Researchers have identified three main causes of obesity and they include genetics, overeating and lack of exercise. The improper diet habits such as personal habits like increased consumption of non calorie artificial sweeteners (Qing Yang, 2010), increase consumption of sugar sweetened beverages (Vasanti et al, 2006), increase snacking (Gayle Savige, 2007), larger portion sizes (Kiyah, 2011), higher fast food consumption (Roberto et al, 2014) are some examples to excess weight gain. As well influence of market deregulation of fast food (Roberto et al, 2014), more exposure to advertising that encourages food consumption and promotes unhealthy foods through the medias and poor physical activities along with increased consumption of low-nutrient and calorie-dense foods (Jennifer & John, 2009) are also included into this causes list. Though the causes were found and many programs have been included into the national policy of many countries, the obesity is

still a challenging medical problem all over the world. It gives big burden to the health sector as well in all countries.

Even though many causes for the obesity were found by the researches it was an understandable fact that the knowledge on this topic is still not sufficient to control obesity. Therefore in this point it is essential to renew the ancient physicians' knowledge on this regard. Hippocrates is considered as father of modern medicine and also he is the father and founder of humoral theory of Unani medicine. He was the first person who spoke about obesity. Further, his humoral theory was enhanced by Arab physicians like Avicenna, Galen etc. A few centuries back many physicians spoke on this topic. Therefore thorough analyzing the causes and the concepts of obesity by the ancient physicians would give a valuable solution on the management of obesity.

Objectives

To give the real description of the causes of obesity in ancient Unani concept through the modern view in order to manage and defeat the obesity in this new era. To find whether the herbs which have strengthen the stomach and intestine would have the ability to reduce obesity.

Methods and Materials

A systematic literary survey was carried out on causes, concepts and therapy for obesity in the ancient physicians' Arabic books and English translated books. Search was carried out using the many ancient texts including 'Avicenna's Canon on Medicine', Unani Materia Medica text and Unani Fundamental books.

As the first step causes of obesity mentioned in the ancient texts were collected. According to the basic of Unani concept the very suitable herbs were then identified from the ancient texts to settle the above said cause/s. Journal titles were extracted which were

only considered as herbal therapy to adipose, obese or overweight condition or phytochemical against obese/ overweight. Above said herbs phytochemical activity related studies also extracted to make importance. Stress relaxes herbs too identified. More articles found in Embase database, MEDLINE (PubMed) and CINAHL the nursing research database. From the journal articles, clinically effective herbs for adipose, obese or overweight condition were identified. Studies published in the form of a conference proceeding or thesis, were not considered.

Results and Discussion

Review of ancient books like Avicenna's 'Canon of Medicine' and other ancient texts disclosed that functional disorder in the Natural faculty (*Quwat e Tabai'yya*) is one of the main causes for obesity with the above mentioned causes. According to the Greek concept, the 'Natural faculty' governs digestion, metabolism, nutrition and growth of the body. A functional disorder in the natural faculty may lead obesity. The functional disorder may due to weakness in the organs of natural faculty or due to emotional disturbances like anger, sad, envy etc. These disturbances can be minimized by strengthen the natural faculty in any means. Many herbs mentioned in Unani medicine include the action of strengthen the organs of natural faculty such as stomach and intestine (*Muqawwi Meida vo Ama*) in order to improve digestion (Gruner, 1930). This concept was put forward during Hippocrates period (460-377 BC) but at present somehow this concept has been put out of use. If the physicians consider the above said valuable concept, then most of the obesity condition in this new era would be solved.

Authors		Activity mentioned in Unani text	Relevant effect for the activity of anti- obese from research articles
Joo <i>et al</i> , (2010)	<u><i>Capsicum annuum</i></u>	digestive, strengthen the GIT	Capsaicin may help fight obesity by decreasing calorie intake, shrinking fat tissue, and lowering fat levels in the blood.
Dhanapakiam <i>et al</i> , 2008	<u><i>Coriandrum sativum</i></u>	carminative, digestive, strengthen the GIT	Suppresses the effect of body fat accumulation mainly through its action coriander controls the cholesterol levels
Mahmoud & Elnouir, (2013)	<u><i>Zingiber officinale</i></u>	digestive , strengthen the GIT	Great ability to reduce body weight without inhibiting pancreatic lipase level, with positive effect on increasing peroxisomal catalase level and HDL-cholesterol.
Yangha <i>et al</i> , (2007)	<u><i>Allium sativum</i> linn</u>	strengthen the GIT	Modulate the adipose tissue mass via decrease of serum lipid and stimulating expression of uncoupling proteins for fat oxidation.
Olaleye <i>et al</i> , (2006)	<u><i>Myristica fragrans</i></u>	digestive , strengthen the GIT	Antianxiety and Antioxidant but prolonged use at high doses (400-500 mg/kg) could be very toxic to the liver and other organs.
Deborah Mitchell, (2012)	<u><i>Piper nigrum</i></u>	strengthen the GIT	Suppresses the effect of body fat accumulation mainly through the action of piperine.” That means piperine disrupts the activity of genes that regulate the formation of new fat cells and may control fat in other ways as well.
Susan Scutti, (2013)	<u><i>Garcinia Cambogia</i></u>	anti ulcer	The extract is shown to inhibit the cytoplasmic lipid accumulation and adipogenic differentiation of preadipocytes. HCA also suppresses appetite by increasing levels of serotonin, a neurotransmitter in the brain that makes you feel good.
Abdelaaty A S (2012)	<u><i>Foeniculum vulgare</i></u>	strengthen the GIT	Serum leptin level showed significant improvement in obese rats due to treatment with fennel methanolic (p<0.01), aqueous (p<0.05) and oil (p<0.05) extracts

Vanecta <i>et al</i> , (2011)	<u>Tamarindus indica</u>	digestive , strengthen the GIT	Ethanol extract showed a significant decrease in body weight, serum cholesterol, and triglycerides and a significant increase in HDL-cholesterol
Huang <i>et al</i> , (2014)	<u>Camellia sinensis</u>	carminative	Green tea has important roles in fat metabolism by reducing food intake, interrupting lipid emulsification and absorption, suppressing adipogenesis and lipid synthesis and increasing energy expenditure via thermogenesis, fat oxidation and fecal lipid excretion
Paramjit Sidhu. (2011)	<u>Cinnamomum verum</u>	carminative , strengthen the GIT	Ceylon cinnamon has cholesterol-lowering and immunomodulatory effects. Cinnamon also may act as an insulin mimetic and stimulate cellular glucose metabolism.
Jing-Tian <i>et al</i> (2006)	<u>Murraya koenigii</u>	carminative , digestive, strengthen the GIT	Decrease blood cholesterol and blood glucose levels. In addition, body weight was reduced after extract treatment.
Andrea Grossman, (2009)	<u>Curcuma longa</u>	carminative , strengthen the GIT, anti ulcer	Curcumin, the major polyphenol found in turmeric, appears to reduce weight gain in mice and suppress the growth of fat tissue in mice and cell models.

Table 1. Research proved anti obesity herbs and how they influence in reduce weight with its activity in Unani aspect

Herbs that clinically tested and used for anti-obese were selected from the journals. Summary of reviewed research article is listed in the Table.1. Particularly the table contained the activities of herbs mentioned in Unani aspect and the results of in vitro and in vivo studies gathered from the journal articles. Articles in 60 journals were cited in the systematic reviews. Six articles were excluded as they were not direct involvement with this study. 58.3% research

done on animal and 33.3% clinical research found on humans. Since these research both animal and human study exposes that there was a significant reductions of the weight found after the herbal treatment on the obese mice or obese human. Another 8.3% was on the literary review of the anti-obesity herbs. From this review study it was found that the 95.8% herbs which found here were used in the research possess the action of strengthening the Natural faculty (*Quwat e Tabai'yya*) that means gastro intestinal tract (GIT). 88.9% of articles revealed that the herb or parts of a herb used to reduce weight. Out of this 54.2% of herb or part of a herb used in this research had the action of carminative effect on GIT and 45.8% herb or herb part used here had the actions of carminative and strengthening effect on GIT. Collectively 13 varieties of different herbs in different combination form were found by the researches to reduced weight.

Conclusion:

Hence it was concluded that in treating obesity while considering in the regulation of diet and exercise a special attention should be focused to enhance the right functions of the natural faculty. In order to get the real function of the natural faculty two important gaps should be fulfilled. First the important organs of the natural faculty such as stomach, the intestines and the liver should be strengthened by carminative foods such as cinnamon, cumin etc. Second, to relive the effects of emotional disturbance for natural faculty a course of meditation should also be introduced.

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