New Insights into Aromatherapy for Obesity: The Future

Muhammad Naeem

The Obesity pandemic is associated with the worldwide increase in cardio metabolic disorders. According to World Health Organization (WHO), the number of obese will raise to 700 million in year 2015. In the United States, 32% of adults are obese and obesity is associated with significant health burden. In 2006 survey it was found that every American spent 16 cent of every dollar on his health and this is thought to gulp the 19.6% of gross domestic product (GDP) by the year 2016.[1,2,3]

In their article, Farouk H et al [4] provide new insight by comparing the sibutramine with the essential oils of grapefruit. They concluded that Grapefruit oil is better than sibutramine for weight reduction because it is not associated with elevated nor-adrenaline levels. Nor-adrenaline has been associated adverse cardiovascular outcomes. They further report that sibutramine-induced weight reduction was rapid but short lasting; while grapefruit oil-induced weight reduction was slow but lasted throughout the duration of the study. This is an interesting finding and provides supporting evidence for examination of the effect of grapefruit oils in humans for weight reduction.

Aromatherapy is regarded as one of the treatment strategy in the field of alternative medicine and it involves the use of volatile compounds enriched in essential oils. Aromatherapy has been practiced since ancient times but to date it has not been accepted as a main stream therapeutic modality due to the lack of supporting scientific evidence[5]. The citrus fruits family may be important for weight reduction due to their effect on the sympathetic nervous system activation in the white adipose tissues resulting in lipolysis and hence weight reduction. Although the mechanism through which aroma therapy may work is unclear, it may involve an increase in sympathetic output from the central nervous system. Hypothalamus plays an important role in fat mobilization through modulation of sympathetic outflow to adipose tissue. Nijima and Nagai reported that olfactory stimulation of hypothalamic nuclei by the aroma of essential oils can fasten the lipolysis by facilitating the nor-adrenaline release at the nerve terminals and thereby reduce weight.[6,7]

Sibutramine, launched in 1997, forms active metabolites which inhibit the reuptake of nor-adrenaline and serotonin in the central nervous system. This reuptake inhibition results in appetite suppression, satiety and thermogenesis and ultimately weight loss.[8] Arterburn DE et al found that sibutramine therapy for 12-month resulted in an average weight loss of 4.45 kg in over weight subjects.[9] However, it remains unclear whether this weight reduction is also associated with reduction in morbidity. At least in animal experiments, sibutramine use is not associated with life prolongation despite reduction in weight.[10]

The Sibutramine Cardiovascular OUTcomes (SCOUT) trial enrolled over 10,000 obese participants with cardiovascular disease, hypertension or type II diabetes. After a 6 week lead in period on 10 mg of sibutramine they found reduction of various cardiovascular parameters but on long term follow up of 3.4 years the researchers found that sibutramine increased myocardial infarction compared with placebo (11.4% vs 10%, hazard ratio, 1.16; 95% confidence interval, 1.03-1.31). Based on long term increased cardiovascular risks, sibutramine was taken off market.[11, 12] It is still a debate whether to devise precaution or management of obesity. Since the already obese patients have cross the limits of precaution, a perfect management in the form of weight reduction therapy can not only reduce this pandemic but will also reduce the burden on the health care budgets of developing as well as developed nations. The aromatherapy still lacks the scientific evidence but it can help to devise the future therapy. Pharmaceutical companies should now divert their attention towards more safer and easily available essential oils as Pharmacotherapy has proven inefficient in wiping the obesity. Orlistat is the only relatively widely used pharmacological agent still in use for the pharmacotherapy of
obesity also has gastrointestinal side effects. Currently, for morbidly obese, Bariatric surgery is the only reliable option. Thus the study by Farouka H et al [4] is timely in providing support to study essential oils and aromatherapy as means of treating obesity with as few side effects and morbidity as possible.

REFERENCES
3. Health care spending in United States to double over 10 years as “sick care” industry bankrupts America. Available at: http://www.naturalnews.com/021680.html (accessed on 11th December 2011)