The Basis for the Treatment of Obesity

Bruce M. Wolfe, MD
Professor of Surgery
Oregon Health & Science University

The Epidemic

A majority of adults in the U.S. are overweight or obese. The prevalence of obesity (BMI>30) in the U.S. exceeds 35%. 6.3% of adults have severe obesity (BMI ≥ 40)[1,2].

Etiology of Obesity

Obesity arises as a result of a complex interaction of genetic and environmental factors. The end result is a metabolic dysregulation of energy balance which results in a gradual increase of excess body fat.

Obesity-Related Pathology

Obesity has been determined to be a disease, associated with multiple comorbid conditions, including diabetes, hypertension, hyperlipidemia, obstructive sleep apnea, impaired quality of life and others[3]. Obesity is also associated with premature mortality[4]. Improvement or induction of remission of these comorbid conditions as well as improved survival associated with weight loss further supports the concept of obesity as a disease.

The Treatment of Obesity

Behavior Modification

The U.S. Preventative Services Taskforce recommends that clinicians screen adult patients for obesity and offer intensive counseling and behavioral interventions to promote sustained weight loss for obese adults. Similarly, the Oregon Medicaid prioritized list of health services lists obesity treatment as “intensive nutritional/physical activity counseling and behavioral interventions” as the 8th highest priority out of 679 conditions. Intense behavior modification can result in a modest but definite sustained weight loss of approximately 5% after four years of ongoing intervention[5].

Bariatric Surgery

Bariatric surgery has been recommended for adults with BMI>40 or >35 with associated comorbid condition following the NIH Consensus Conference of 1991, reaffirmed by the NIH guidelines for the treatment of obesity in 1998. In this patient population the weight loss accomplished by bariatric surgery far exceeds that achieved by behavior modification or other medical interventions[6]. This weight loss is sustained over intervals as long as 20 years[7]. The benefits of this weight loss include induction of remission of the life-threatening comorbidities associated with severe obesity, including a majority of patients with diabetes, hypertension, hyperlipidemia and obstructive sleep apnea[6,8]. Quality of life is improved[9]. Improved survival over a period of years has also been demonstrated in multiple studies, including the matched cohort analyses from Sweden and Utah[6,10]. As the result of the induction of remission of comorbid conditions, as well as a decrease in the incidence of all cancers, health care costs are reduced. A complete

return on investment for both laparoscopic gastric bypass and gastric banding has been reported in as little as two years, utilizing commercial claims data from multiple U.S. databases[11,12].

Safety of bariatric surgery has been an appropriate concern in the past. The most recent data published by the NIH consortium on bariatric surgery research reported a mortality rate of 0.3% and a complication rate of 4.1%, comparing very favorably to virtually all major thoracic or abdominal surgical procedures[13]. This represents an approximate ten-fold reduction in perioperative mortality over the last ten years[14].

The potential for a substantial increase in short-term cost associated with the upfront cost of the surgical procedures is understood. Experience has shown, however, that a "rush to the operating room" occurs to only a very modest extent at most, following addition of a bariatric surgical benefit to a specific health plan[15]. Oregon examples include the prevalence of approximately 230 cases per year for Oregon PEBB beneficiaries, representing <1% of their covered lives. The explanation for the low utilization of bariatric surgery requires further study. Fear of a complication as well as a lack of knowledge regarding the adverse effects of obesity and the benefits of bariatric surgery contribute to the low utilization of bariatric surgery.

In summary, obesity is a life-threatening disease which is associated with multiple chronic diseases and premature mortality. Modest weight loss with non-surgical therapy can be achieved with intense behavior modification. More substantial weight loss with greater benefits is achieved by bariatric surgery with a low complication rate. Cost savings are generated over time. It is therefore appropriate to include the medical and surgical treatment of obesity in any and all health plans offered in the state of Oregon from this point forward.

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