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ORIGINAL ARTICLE

Utility Assessment of Body Contouring After Massive Weight Loss

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Abstract
Background The number of surgical procedures performed for obesity and massive weight loss (MWL) is increasing. The authors set out to quantify the health state utility assessment of living with MWL that can occur after such procedures.
Methods Utility assessments using the visual analog scale (VAS), time trade-off (TTO), and standard gamble (SG) were used to obtain utilities for MWL, monocular blindness, and binocular blindness from a sample of the general population and medical students.
Results All the measures for MWL of the 100 volunteers (VAS, 0.79 ± 0.13; TTO, 0.89 ± 0.12; SG, 0.89 ± 0.15) were significantly different ($p < 0.005$) from the corresponding measures for monocular blindness (0.63 ± 0.18, 0.84 ± 0.17, and 0.86 ± 0.16, respectively) and binocular blindness (0.31 ± 0.17, 0.63 ± 0.28, and 0.66 ± 0.27, respectively) except for the SG utility measure comparing monocular blindness with MWL. Age was inversely proportional to the TTO utility scores for MWL ($p < 0.05$). Caucasian race and medical education were independent predictors of SG utility scores ($p < 0.05$).
Conclusion In a sample of the general population and medical students, SG utility assessments for MWL were comparable with those for monocular blindness. Utility assessment of living with MWL varied with race (VAS and SG) and education (SG). The sample population, if faced with MWL, would consent to undergo a procedure such as body contouring with an 11% chance of death and be willing to trade 4 years of their life.

Keywords Binocular blindness · Body contouring · Massive weight loss · Monocular blindness · Obesity · Quality assessment · Quality adjusted life years · QALY

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Introduction

Body contouring for the massive weight loss (MWL) patient can serve as both aesthetic and functional procedures. These procedures generally address the stigmata of MWL including redundant skin and unwieldy subcutaneous tissue creating an unattractive appearance, problems of hygiene and skin irritation, pain, intertrigo, and decreased activity.

Patient satisfaction after body-contouring surgery generally is high due to improved body image, enhanced ability to fit clothes, and decreased skin irritation. As with any procedure, body contouring has its own risks and complications including infection, hematoma and seroma formation, deep vein thrombosis, and pulmonary embolism. It still is debated whether the long-term benefit that patients receive from body-contouring procedures is worth the increased perioperative risks.

Utility scores ranging from 0 (death) to 1 (perfect health) are a standardized tool that helps to objectify health states or disease. These scores allow a comparable quantitative value for individual health states that can be used in health economic decision analysis to determine how health resources should be allocated for treatment and research.