Effect of obesity on outcomes in patients who undergo implantation of a continuous-flow left ventricular assist device

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Response

We thank Gokalp and colleagues for their thoughtful comments on our report. Our study found that obesity alone was not an independent risk factor for mortality in patients who underwent CF-LVAD implantation [1]. Other groups also have reported that obesity does not seem to be a risk factor for mortality in LVAD patients [2, 3].

We understand that much of the current data indicate that obesity increases mortality risk after cardiac surgery because of the co-factors that Gokalp et al. mention in their letter [4, 5]. However, as we discuss in our report, obesity should not be an absolute contraindication for long-term implantable LVAD therapy.

Our group of 120 obese patients (BMI > 30 kg/m²) included a subset of 33 morbidly obese patients (BMI > 38.5 kg/m²). In a Kaplan–Meier analysis (Fig. 2 of our article) in which we compared the morbidly obese patients to all other patients (including those who were obese but not morbidly obese), we found significantly greater mortality in patients with morbid obesity ($p=0.049$). In contrast, obesity of any degree (i.e.,

BMI > 30 kg/m²) was not a significant independent predictor of postoperative mortality when all variables were placed in a multiple Cox proportion hazards model and subjected to stepwise regression analysis (hazard ratio = 0.98, 95% confidence interval 0.766–1.277, $p=0.13$).

At our center, we perform early extubation, discontinue the central line, and provide adequate nutritional support and aggressive occupational and physical therapy for obese patients to prevent complications such as pneumonia and infection [6]. This may be why our findings suggest that well-selected obese patients can receive a similar survival benefit from LVAD implantation as non-obese patients.

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