

Does Obesity Lead to Increased Systemic Complications in Operative Acetabular Fractures?

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Purpose: As obesity has become more pervasive in our society, it has complicated the surgical treatment of acetabular fractures. Obesity has also been implicated in increasing the overall rate of systemic complications and mortality in trauma patients. The purpose of this study is to assess the impact of obesity on the rate of in-hospital systemic complications in patients with surgically treated acetabular fractures.

Methods: A retrospective review was performed of all patients with operatively treated acetabular fractures at a single Level-I trauma center. All patients were grouped according to their body mass index (BMI), categorized as normal weight (BMI 20-25), overweight (BMI 25-30), obese (BMI 30-40), and morbidly obese (BMI >40). The incidence of systemic complications including pneumonia, acute respiratory distress syndrome (ARDS), venous thromboembolic event (VTE), sepsis, and mortality in each group were determined by review of the electronic medical record.

Results: Between 2015 and 2019, a total of 416 acetabular fractures with a median patient age of 41.7 years were treated at our institution (89 normal weight, 147 overweight, 138 obese, 42 morbidly obese). Complication rates by BMI class are listed in Table 1. Overall systemic complication rates and none of the assessed individual systemic complications were affected by BMI.

Conclusion: Although obesity causes unique challenges and increases surgical complications in acetabular fracture surgery, it did not play a significant role in the systemic complications seen in these patients. Inasmuch, the fear of nonsurgical complications should not be used to advise against surgical fixation in the obese.