Postoperative complications do not differ with obesity in ankle arthroplasty

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For patients undergoing total ankle arthroplasty (TAA), the impact of obesity on outcomes is unclear, according to two studies recently published in Foot & Ankle International.
Billy I. Kim, from Duke University in Durham, North Carolina, and colleagues conducted a single-institution, retrospective study of 1,093 primary TAA performed between 2001 and 2020 with minimum follow-up for two years. Patients were stratified by body mass index (BMI) into control, obesity class I, and obesity class II (BMI, 18.5 to 29.9, 30.0 to 34.9, and >35.0 kg/m² [615, 285, and 193 patients, respectively]). The researchers found that across BMI classes, there were no statistically significant differences in postoperative complications (infection, implant failure, or impingement).

Toby Jennison, M.B.B.S., Ph.D., from the University Hospitals Plymouth NHS Trust in the United Kingdom, and colleagues conducted a data linkage study combining the National Joint Registry Data and National Health Service Digital data to assess the risk factors for failure of total ankle replacements. The researchers found that the overall five-year survival was 90.2 percent. Only age, body mass index, and underlying etiology were associated with an increased risk for failure in multivariable models (hazard ratios, 0.96, 1.03, and 0.88, respectively).

"The fact that there continues to be conflicting information in the literature regarding the impact of BMI on total ankle replacement outcomes suggests that there are factors at play that are not easily identified or assessed," Timothy R. Daniels, M.D., and Ellie Pinsker, Ph.D., both from the University of Toronto, write in an accompanying editorial.


Toby Jennison et al, Risk Factors for Failure of Total Ankle Replacements: A Data Linkage Study Using the National Joint Registry and NHS Digital, Foot & Ankle International (2023). DOI: