First, thank you to the authors for the very well written and educational article titled, Failure to Medically Optimize Before Total Hip Arthroplasty: Which Modifiable Risk Factor Is the Most Dangerous?

While local complications such as prosthetic joint infection, periprosthetic fracture, aseptic loosening, and hematoma are common, systemic complications after elective total joint arthroplasty (TJA) also occur and include deep venous thrombosis, pulmonary embolism, myocardial infarction, cerebral vascular accident, renal failure, and, although rare, death [1–3]. With continued pressure to decrease complications from both clinical and cost standpoints, surgeons strive to optimize patients before surgery as risk factors for complications are well established [4]. There are risk factors for elective arthroplasty that are nonmodifiable such as age, sex, renal disease, rheumatologic disease, metastatic tumor, peripheral vascular disease, and varicul disease [4–6]. Most nonmodifiable risk factors can at least be optimized before elective arthroplasty; however, these risks continue to be present to some degree.

Documented modifiable risk factors for TJA including diabetes control, elevated basal metabolic index (BMI), smoking or tobacco use, anemia, methicillin-resistant Staphylococcus aureus colonization status, and malnutrition [7–10]. The authors of this study reported in a large database that malnutrition, defined as hypoalbuminemia (<3.5), was the strongest risk factor for all complications evaluated [11]. It has been reported that individuals with obesity are at higher risk of complications; however, surgeons often indicate arthroplasty in patients with BMI over 40 for various reasons [12]. While there is debate regarding strict BMI cutoffs, insistence on smoking cessation, preoperative nutritional optimization, and HbA1C limits of 7.0 or less, the decision to offer a patient elective TJA is ultimately made by the surgeon taking into account the patient’s full risk profile and potential benefit of surgery [13,14].

The World Health Organization (WHO) declared the outbreak of COVID-19 a global pandemic on March 11, 2020 [15]. Shortly after this declaration, many countries limited or ceased elective orthopedic surgery due to the pandemic and associated disruptions. The answer to how to address this question will undoubtedly not receive unanimity but is currently being asked at local and regional levels and will potentially require orthopedic leadership to further bridge this discussion and research into the outcomes of COVID-19 vaccination status as an independent modifiable risk for arthroplasty and other major elective procedures.

Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this article.

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