



Contents lists available at ScienceDirect

# The American Journal of Surgery

journal homepage: [www.americanjournalofsurgery.com](http://www.americanjournalofsurgery.com)

## The impact of obesity on treatment choices and outcomes in operable breast cancer<sup>☆</sup>



DR. FAAIZA VAINCE (Maywood, Illinois): Dr. Burkheimer and colleagues, your analysis was thorough and thoughtful. It looked at many variables that are often overlooked when collecting data for the patient population of interest in this discussion.

What I have found in practice is that obesity-related perioperative complications are often discussed with patients, however, in the pre-diagnosis setting, patients are not always counselled adequately about obesity as a risk factor for developing breast cancer? What have you noticed in your practice patterns? Do you find obese patients are counselled any differently in terms of breast cancer risk factors and in terms of treatment options upon diagnosis of breast cancer? And in reviewing your own data, how would you advise practice patterns be changed in regards to this? My second comment and question is in relation to your finding that obese patients have higher rates of breast conservation surgery. I, too, would have thought that this may be due to greater breast size to tumor ratios, however, as you noted, your data comparing the T1 lesions within the subgroups may suggest otherwise. Can you speculate whether obese patients are more convincingly steered away from mastectomy in an attempt to pursue a more or less invasive and involved procedure given the presence of comorbidities and increased complication rate of obese patients?

And I, too, would agree that the decreased utilization of preoperative breast MRI in obese patients may actually lead to a decreased mastectomy rate given the possible risk of overestimation of the disease with MRI. This could be a possible future direction of study.

DR. BURKHEIMER: So regarding the first question, which regarded counseling about increased risk of developing breast cancer in obesity, I think this would have to fall more on primary care physicians to discuss with the patients their increased risks of developing cancers or tumors that are more associated with obesity. So that would be a little bit more difficult for us once we meet them with already tumors in place. However, once you establish a relationship with that patient, it would be good to counsel them on losing weight throughout the rest of their postoperative course to prevent that future risk of developing another

tumor in their breast as well. So that would be one thing that we could add based on our findings, and we didn't specifically look at the risk of developing breast cancer, but that's been previously studied and shown to be pretty significant in this population. And then I believe your last question was regarding the surgery choice with these patients. I'm not sure if these patients when they go to meet with the plastic surgeon if they're discussing mastectomy, if they try to steer them a little bit more away from that since they have higher rates of flap loss after reconstructive surgery, as well.

DR. SCOTT WILHELM (Cleveland, Ohio): Dr. Burkheimer, a very clear and concise presentation. Since you had about 500 patients in your obesity population, did you guys extrapolate it out any further to look at the degree of obesity? So, you know, you define your obesity as a BMI greater than 30. Did you look at morbidly obese, greater than 40, super morbidly obese, greater than 60 just to see if your data set continued to show worsening problems with morbidity and mortality and/or cancer complications or differences in management?

DR. BURKHEIMER: We did not specifically look at that, but there have been studies in the past that stratified based on the degree of obesity and that increased risk did increase each level of obesity. And the time at their diagnosis of obesity did not affect it as well.

DR. LAURENCE McCAHILL (Wyoming, Michigan): The one question I ask, and maybe it's beyond the realm of your presentation, but we have pretty good data that MRI leads to higher mastectomy rate, and there's at least, I think, three really well done broad studies that show that it has no impact on survival outcomes. But I noticed, I think, your MRI utilization that your institution pushed 60 to 65%, I think. Can you comment on why are you using MRI 65% of the time?

DR. BURKHEIMER: At the time of this study, there was no protocol in place with utilization of the MRI. Currently, they now use an MRI is part of the workup in any diagnosis of lobular, invasive lobular cancer, to define the extent of the disease. And then also any patient with extremely dense breasts on mammography, they utilize that, as well. And I'm not sure exactly when that was instituted in the time of the study.

<sup>☆</sup> (Presentation given by Erica Burkheimer, M.D.)