

Papers Regarding Operative Times and Complications Can Be Misleading

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We read with interest Dr Kenkel's paper on the impact of operative time on the complications after plastic surgery.¹ Although we appreciate an attempt to determine the impact of operative times on complication rates, we believe that plaintiffs' attorneys would appreciate this study much more than any plastic surgeons. This study suggests that there is a significantly increased risk of complications after 3 hours. In reviewing the study, 5.08 hours for tissue expander breast reconstruction and 6.70 hours for a SMAS flap seem excessively long for an experienced plastic surgeon. This would lead me to believe that many of the surgeries, in fact, were performed by residents, and would have a higher rate of complications. When the stratification was performed by surgery type, the longer and more complicated procedures had a higher rate of complications. The issue is that larger and more complicated surgeries take longer and have a higher rate of complications. Typically, surgeries that can be performed in less than 3 hours are less complicated. Common sense would agree with this. The flaw in the current paper is that there is a large disparity between the complexities in the surgical procedures that were chosen. Autologous reconstruction and expander reconstruction can be either straightforward or extremely difficult, depending on body habitus, previous surgeries, radiation, and the surgeon's level of experience. A better assessment of time and complication rate would be a single-surgeon study with patients having multiple procedures that have similar levels of complexity and that stratifies the BMI into more groups than just greater or less than 30. Grant Stevens did exactly that and showed no difference in complications between single surgeries and combination surgeries of similar complexity with operative times up to 330 minutes.^{2,3}

The question that remains is whether, if we established that the complication rate increases exponentially over 3 hours of surgical time, certain surgeries would be considered an unacceptable risk. For example, it would be very difficult to perform a free flap in less than 3 hours in many cases. Should that procedure not be performed because it is potentially a six-hour surgery? Certainly operating on larger

patients, even if their BMI is well below 30, can take significantly longer than performing the same procedure on a 110-pound patient with a BMI of 20. Should we not operate on bigger patients because their operative times will be prolonged? We know from experience that larger patients with larger BMIs do have more complications, and their surgeries do take longer. Should breast reconstructive procedures and full-face rejuvenation be abandoned because it would be nearly impossible to perform these surgeries in less than 3 hours?

We believe that papers such as these make it very easy for laypersons, politicians, and plaintiffs' attorneys to point fingers and state: "Doctor, your operative time was over 3 hours, and therefore the complication rate is unacceptably high," or "Let me quote you from a recent paper in the *Aesthetic Surgery Journal*." Taking the conclusions of this paper out of context could do more harm than good. All plastic surgeons know that there are certain procedures that do take longer, that some procedures have a higher rate of complications, and that larger patients take longer to operate on than smaller patients; however, as physicians and surgeons we still perform certain surgeries that do have higher rates of complications and that take well over 3 hours to complete. We take our patient's best interests into consideration and perform the best possible surgery. It is important that we do not place a specific time frame in association with complications, as there are many more factors involved in the surgical decision than a single numerical value.

Disclosures

Dr Chasan is a consultant and lecturer for the Allergan Corporation. Dr Marin has no disclosures.

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REFERENCES

1. Hardy KL, Davis KE, Constantine RS, et al. The impact of operative time on complications after plastic surgery: a multivariate analysis of 1753 cases. *Aesthet Surg J.* 2014;34(4):614-622.
2. Stevens WG, Vath SD, Stoker DA. "Extreme" cosmetic surgery: a retrospective study of morbidity in patients undergoing combined procedures. *Aesthet Surg J.* 2004;24(4):314-318.
3. Stevens WG, Repta R, Pacella SJ, et al. Safe and consistent outcomes of successfully combining breast surgery and abdominoplasty: an update. *Aesthet Surg J.* 2009;29(2):129-134.