fluid are administered, less opioids are given, the patient is mobile sooner, and all complications are reduced.

In the 1970s, when perioperative death from anesthetic cause was estimated as 1–10:10,000 anesthetics,2,3 the 10,000 anesthetics were given for open operations that were performed in those days. Today, when we estimate death in 10,000 anesthetics, the number includes relatively smaller procedures. Moreover, the same “open surgery” had a different meaning 30 yr ago than today. Advances in surgical techniques, such as electric cutting and coagulation, staplers instead of hand-made anastomosis, and skin stitching, have changed the course of open surgery. Preoperative imaging, such as magnetic resonance imaging or isotope mapping, mammographic wire localization, and sentinel node technique, enables the surgeon to focus on the diseased area and avoid large exploration on the operating table. In addition, in some cases, the radical approach for cancerous diseases did not show a better outcome than less radical surgery, and some operations were changed as a result, for example, radical mastectomy.4

In general, anesthesia is coupled with surgery, for better or worse. To fully understand and analyze the changes and advances in anesthesia, we need to know what happened in surgery during that time. The credit for reduced morbidity and mortality can be attributed to all parties taking care of the patient.

Michal Barak, M.D., Rambam Health Care Campus and the Bruce Rappaport Faculty of Medicine, Technion, Haifa, Israel. m_barak@rambam.health.gov.il

References


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In Reply:

Dr. Barak is of course correct that surgery and anesthesia have advanced during the past two decades; for that matter, nursing care has also improved. However, as mentioned in my editorial,1 now we also care for much sicker patients than in previous years.

The extent to which various factors contribute to improved perioperative outcomes remains unclear and will presumably never be accurately proportioned. Assigning credit (or blame) is less important than recognizing that our management decisions may influence long-term outcomes.

Daniel I. Sessler, M.D., The Cleveland Clinic, Cleveland, Ohio. ds@or.org

Reference


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