Office-Based Plastic Surgery with General Anesthesia: Efficiency of Cost and Time

Michelle A. Spring, M.D.,¹ David A. Stoker, M.D.,¹ John Holloway, M.D.,¹
Marcia Weintraub, M.D.,¹ and W. Grant Stevens, M.D.¹

ABSTRACT

Office-based plastic surgery with general anesthesia has several benefits compared with hospital-based surgery. Office-based procedures can be done in a safe, cost- and time-efficient manner, with improved convenience for both the surgeon and the patient. A review and discussion of outpatient plastic surgery procedures at the Marina Outpatient Surgery Center in Marina del Rey, California, was performed.

KEYWORDS: Office-based plastic surgery, general anesthesia

Office-based plastic surgery has received attention in the literature and in informal settings for many years. Numerous papers have documented the safety and efficacy of performing surgery outside of a hospital facility.¹⁻⁴ Hospital-based surgery, though considered the gold standard by some, is fraught with inconveniences and inefficiencies. High-quality care can be provided in both settings, but office-based surgery can offer greater control of cases, ease of scheduling, lower costs, improved time efficiency, and a better lifestyle for the surgeon. Patients as well as physicians often find it more convenient and comfortable to travel to one office and surgery center rather than navigate one or more cumbersome hospitals (Fig. 1).

METHODS

Data from procedures performed at Marina Outpatient Surgery Center by one of two board-certified plastic surgeons (W.G.S. and D.A.S.) was reviewed. The facility is certified by the American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF) as a level C center. Board-certified anes-

thesiologists are used for all cases except those with local anesthesia.

Prior to surgery, patients are given 1 mg sublingual Ativan[®] (Biovail Pharmaceuticals, Inc., Bridgewater, NJ) once they arrive at the surgery facility. They are also given preoperative intravenous antibiotics to allow for adequate tissue levels at the time of incision and to ensure early identification of an allergy that may otherwise be masked by general anesthesia. Propofol is used for induction, a balanced inhalational agent and narcotic is used for anesthesia maintenance, and laryngeal mask airways (LMAs) are used for airway patency. Nausea and vomiting are controlled with a combination of Decadron[®] (Merck & Co., Inc., Whitehouse Station, NJ) and an antiemetic. Patients are recovered in a separate room with a registered nurse (RN). Average stay in the surgery facility after the procedure is ~50 minutes. Once the patients fulfill discharge criteria, they are either sent home or to an after-care facility, which is paid for by the patient. Three-fourths of patients spend one night or more at a specialized after-care facility staffed with nurses. The service picks the patients up at the surgery center and brings them to their appointments at the office the next day.

¹Cosmetic and Reconstructive Plastic Surgery, Marina Outpatient Surgery Center, Marina del Rey, California.

Address for correspondence and reprint requests: W. Grant Stevens, M.D., Cosmetic and Reconstructive Plastic Surgery, Marina Outpatient Surgery Center, 4644 Lincoln Boulevard, Suite 552, Marina del Rey, CA 90292.

Office-Based Plastic Surgery; Guest Editor, Robert A. Ersek, M.D., F.A.C.S.

Semin Plast Surg 2007;21:99-102. Copyright © 2007 by Thieme Medical Publishers, Inc., 333 Seventh Avenue, New York, NY 10001, USA. Tel: +1(212) 584-4662.

DOI 10.1055/s-2007-979209. ISSN 1535-2188.

Figure 1 Having control allows us the freedom to have color coordinated, high-quality, and stylish interiors.

RESULTS

Over the past 5 years, the outpatient operating room has been open an average of 214 days per year, with a range from 192 to 229 days (Fig. 2). We have operated on an average of 770 patients per year, and they have had an average of 1567 procedures per year. The average patient has 2.1 procedures at each setting, and 3.6 patients are operated on each day. The majority of cases are less than 2.5 hours, and less than 5% are more than 4 hours in length. All patients receive sequential compression devices prior to the induction of anesthesia, and no urinary catheters are placed. Less than 3% of patients have local anesthesia, and these cases are usually small excisions, revisions, or nipple repairs.

Since 1989, we have had no operative deaths and have had, on average, less than one transfer to the hospital per year. Patients have been transferred for pulmonary emboli, asthma, ventricular arrhythmias, atrial arrhythmias, hypertension, malignant hyperthermia, and anaphylaxis. A formal transfer agreement with the hospital across the street facilitates a transfer for patients who need further workup, observation, and/or medical treatment.

DISCUSSION

There are numerous benefits in operating at an outpatient surgery center. Staffing is consistent, reliable, and there is an added feeling of teamwork and motivation for

Figure 2 Our facilities are completely equipped for general anesthesia and every plastic surgery procedure.

efficiency. There is no risk of getting a procedure "bumped" for an emergent operation. The turnover is fast and efficient, minimizing wasted time and resulting in more cases being performed each day. Having an office across the street ensures that patients with problems can be seen urgently, yet the well-intentioned requests of the office staff to quickly see a patient in between cases is minimized, lessening delays during the operative day. Patients do not have to navigate confusing and cumbersome hospitals, and they take comfort in the consistency of staff.

Additional protocols have been found to be helpful in promoting effortless patient care and satisfaction. The anesthesiologist calls the patient prior to the surgical day to obtain a complete medical history. Patients are called by a surgeon and the anesthesiologist the night of surgery to answer questions, check for any postoperative problems, give emotional support to the patients, confirm postoperative appointments, and verify instructions for the family member. Most patients are seen the next day in the office by a nurse or the surgeon and then again within the week by the surgeon.

CONCLUSION

Office-based surgery is a viable and realistic option for plastic surgeons to attain a satisfying and rewarding career and lifestyle and to provide patients with safe, excellent, and convenient care. Appropriate safe precau-

tions and accreditation are crucial factors in a successful outpatient plastic surgery practice. General anesthesia may improve safety, time-effectiveness, and cost in an office-based practice.

ACKNOWLEDGMENTS

We would like to thank Catherine Genender, RN, operating room director, Charlie Sheridan, patient coordinator, and the Marina Outpatient Surgery Center and staff for their help with this publication.

REFERENCES

1. Bitar G, Mullis W, Jacobs W, et al. Safety and efficacy of office-based surgery with monitored anesthesia care/sedation in 4778 consecutive plastic surgery procedures. *Plast Reconstr Surg* 2003;111(1):150-156; discussion 157-158
2. Hoefflin SM, Bornstein JB, Gordon M. General anesthesia in an office-based plastic surgical facility: a report on more than 23,000 consecutive office-based procedures under general anesthesia with no significant anesthetic complications. *Plast Reconstr Surg* 2001;107(1):243-251; discussion 252-257
3. Keyes GR, Singer R, Iverson RE, et al. Analysis of outpatient surgery center safety using an internet-based quality improvement and peer review program. *Plast Reconstr Surg* 2004; 113(6):1760-1770
4. Morello DC, Colon GA, Fredricks S, et al. Patient safety in accredited office surgical facilities. *Plast Reconstr Surg* 1997; 99(6):1496-1500