Do Patients Fear Undergoing General Anesthesia for Oral Surgery?

Jasmine R. Elmore, BS,* James H. Priest, DDS,† and Daniel M. Laskin, DDS, MS‡

*Previously, senior dental student Virginia Commonwealth University School of Dentistry. Currently, pediatric resident, St. Christopher's Hospital for Children, Philadelphia, Pennsylvania, †Adjunct Affiliate Professor, Department of Oral and Maxillofacial Surgery, Virginia Commonwealth University, School of Dentistry. Private practice, South Boston, Virginia, ‡Professor and Chairman Emeritus, Department of Oral and Maxillofacial Surgery, Virginia Commonwealth University School of Dentistry, Richmond, Virginia

Many patients undergoing major surgery have more fear of the general anesthesia than the procedure. This appears to be reversed with oral surgery. Therefore, patients need to be as well informed about this aspect as the surgical operation.

A study by the American Society of Anesthesiologists (ASA), reported in 2010, found that a lack of understanding and fear about general anesthesia has led to as many as 25% of patients postponing necessary surgery.¹ However, the attitude of patients about having general anesthesia specifically for oral surgery procedures has never been investigated. The purpose of this study was to determine if patients who need to undergo a general anesthetic for oral surgery have the same apprehension as those needing major surgery. It was hypothesized that a similar lack of knowledge and fear about general anesthesia would be found. If this were true, it could lead to protocols being developed that would make it possible for patients to undergo such treatment in a less stressful manner.

PATIENTS AND METHODS

In this institutional review board–approved cross-sectional study, prior to seeing the doctor, a questionnaire containing 14 questions (Figure) was administered to 100 consenting patients who presented for an oral surgery procedure to be done under general anesthesia at a private oral and maxillofacial surgery office (J.P.). To be included in the study, this had to be the patient's first visit and he/she had to be aged 16 years or older. In

addition to demographic information regarding age, sex, educational level, and prior experience with general anesthesia, the questions dealt with fear and anxiety about receiving general anesthesia, reasons for possible fear/anxiety, whether having a partner or friend present would decrease fear/anxiety, and fear of having a needle placed in the arm or mouth. There were also 2 true-false questions related to knowledge about general anesthesia (Figure). The answers from the questionnaires were tabulated, where indicated the percentages of positive and negative response were calculated. Any differences between the patients' age, sex, educational level, and prior experience with, and knowledge about, general anesthesia in those who did and did not have fear and anxiety about receiving a general anesthetic for oral surgery were determined.

RESULTS

Ninety-four of the 100 questionnaires had complete answers and were included in the analysis. There were 31 male and 63 female participants. They ranged in age from 16 to 70 years. Fifty-nine of the 94 patients (63%) stated that they were unafraid of undergoing general anesthesia, whereas 35 (37%) stated that they had fear/anxiety. The ratio by sex was similar in both groups, with 20 male and 39 female participants in the former and 11 male and 24 female participants in the latter. There was also no difference in age distribution between the 2 groups. However, although 50% (30/59) of those unafraid had had a general anesthetic previously, only

Received September 24, 2013; accepted for publication March 7, 2014.

Address correspondence to Dr Daniel M. Laskin, Department of Oral and Maxillofacial Surgery, Virginia Commonwealth University School of Dentistry, 521 N. 11th St, PO Box 980566, Richmond, VA 23298-0566; dmlaskin@vcu.edu.

Anesth Prog 61:69–72 2014

© 2014 by the American Dental Society of Anesthesiology

ISSN 0003-3006/14

SSDI 0003-3006(14)

1. Age: _____
2. Male _____ Female _____
3. Educational level: less than high school _____ high school _____
some college _____ college degree or higher _____
4. Have you ever received general anesthesia before today? Yes _____ No _____
I am not sure _____
5. Do you have fear/anxiety about undergoing general anesthesia? Yes _____ No _____
6. If you answered "No", skip to Question #10
7. Describe the level of fear/anxiety you experience.
Slight fear/anxiety _____
Mild fear/anxiety _____
Moderate fear/anxiety _____
Extreme fear/anxiety _____
8. What is the main reason for your fear/anxiety about general anesthesia? Choose only one
Not waking up after surgery _____
Waking during surgery _____
Having pain during surgery _____
Other: _____
9. Would your fear/anxiety level decrease if you had a friend or partner present with you during the procedure?
Yes _____ No _____ Unsure _____
10. Is the following statement true or false? Being under general anesthesia is the same as being asleep.
True _____ False _____
11. Is the following statement true or false? General anesthesia numbs a small area of the body without altering your awareness.
True _____ False _____
12. Would you feel more, less, or the same fear/anxiety about having general anesthesia for a gall bladder removal or other general surgery than for an oral surgery procedure?
More anxiety _____ Less Anxiety _____ Same anxiety _____
13. Are you afraid of having a needle injection in your arm?
Yes _____ No _____
14. Are you afraid of having a needle injection in your mouth?
Yes _____ No _____

Thank you for your cooperation!!!

General Anesthesia Survey

30% (10/35) did in the fearful group. There was also a difference in the education of the 2 groups. Sixty-nine percent of the fear/anxiety group had had some college experience or had a college degree or higher, but this was true in only 22% of the unafraid patients. Ten of the 35 patients who reported fear/anxiety stated it was

slight, 15 said it was mild, 8 said it was moderate, and 2 stated it was extreme. When these patients were asked to select the main reason for their fear/anxiety, 9 indicated "not waking up," 6 chose "waking up during the procedure," 11 feared having pain during the procedure, and 9 stated other reasons (an allergic reaction, the

anesthetic not working, all of the given choices). Sixteen of them noted that they would have less fear/anxiety if a friend or partner was present with them. When asked if they would feel more, less or the same amount of fear/anxiety if they were having a general anesthetic for removal of their gall bladder or other serious operation, 17 of the 35 fearful patients (50%) indicated more fear/anxiety. On the other hand, of the 59 participants who had no fear/anxiety of general anesthesia for oral surgery, only 35% noted that they would have more fear/anxiety with other types of operations.

When fearful patients were asked if they were afraid of having a needle placed in the mouth, about 66% were afraid of an oral injection, but only 37% were afraid of an injection into the arm. In the 59 patients without fear of general anesthesia, only 28% were afraid of an oral injection and 19% were afraid of an injection in the arm.

Although 60% knew it was false that general anesthesia numbs a small area of the body without altering awareness, 60% thought that general anesthesia was the same as being asleep.

DISCUSSION

Contrary to what was expected, the findings of this study did not confirm our hypothesis that patients who are to undergo general anesthesia for an oral surgery procedure have fears about the anesthetic that are similar to those of patients who are to have some form of general surgery. Although more than 75% of the patients in the ASA study expressed having some concerns about anesthesia for general surgery,¹ only 37% of the patients in this study had fear and anxiety about having general anesthesia for an oral surgery procedure, and this was generally slight or mild. Thus, it appears that patients who present to the oral and maxillofacial surgeon probably have greater fear/anxiety about the surgical procedure than the anesthesia. Of those who did report a fear of general anesthesia, 50% had not experienced it previously. Therefore, previous experience does not always result in reduced fear and anxiety. Educational level also appeared to be a factor in whether a patient had fear/anxiety about general anesthesia. However, contrary to what might be expected, 63% of the patients who reported fear/anxiety had some college experience or a college degree or higher compared with 22% in the unafraid group. It may be that these patients have greater knowledge of the potential risks that may be involved.

Sixty-nine percent of the patients who had fear/anxiety about having a general anesthetic for oral surgery were women. Although there may have been a bias because of the larger number of women than men in this

study, a similar finding has been reported for general surgery patients by Mavridou et al.² They also showed that young patients, in particular, have fears about the anesthesia that are distinct from those about the surgery, a situation not found in our study.

Two of the questions in this survey were similar to those in the ASA survey. Both groups had similar knowledge about the fact that having general anesthesia was not similar to being asleep (correct answer 38% versus 40% ASA) but, in regard to a general anesthetic numbing a part of the body while keeping awareness intact, the ASA respondents were more knowledgeable (correct answer 59% versus 83% ASA). The relatively poor showing by participants in this study confirms the ASA opinion¹ that a lack of understanding is a major factor in patients' fear of general anesthesia.

Because general anesthesia in the oral and maxillofacial surgery office usually involves an intravenous injection, patients were asked if they were afraid of having a needle placed in their mouth or in their arm. Interestingly, twice as many were afraid of an injection in the mouth as opposed to one in the arm. This may be a factor in patients often requesting to have general anesthesia for oral surgery.

Although the results of this study show that most patients have greater fear of having general anesthesia for major surgery than for oral surgery, it is still important to take steps to make the experience less stressful because some patients are still fearful of the anesthetic and others have concerns about needle injections, still having pain, or not awakening. This should involve a thorough discussion of anesthesia safety and what is involved in the anesthetic procedure.^{3,4} Moreover, because so many patients fear having an injection in the mouth, and this is generally part of the operation, it is particularly important that patients be informed that such injections are not done until they are under the anesthetic. Letting patients know that they can have someone with whom they are familiar present during the induction phase can also be helpful in lessening fear and anxiety. Finally, patients should be encouraged to ask questions about any other concerns they may have, such as those expressed in this study about awakening during the procedure or feeling pain during the operation.

REFERENCES

1. American Society of Anesthesiologists. *Vital Health Report 2*. Park Ridge, IL: ASA; 2010.
2. Mavridou P, Dimitriou V, Manataki A, Arnaoutoglou E, Papadopoulos G. Patient's anxiety and fear of anesthesia: effect of gender, age, education, and previous experience of

anesthesia. A survey of 400 patients. *J Anesth*. 2012;27:104–108.

3. Klafta JM, Roizen MF. Current understanding of patients' attitudes toward and preparation for anesthesia: a review. *Anesth Analg*. 1996;83:1314–1321.

4. Mavridou P, Dimitriou V, Papadopoulou M, Manataki A, Arnaoutoglou E, Papadopoulos G. Effect of previous anesthesia experience on patients' knowledge and desire for information about anesthesia and the anesthesiologist: a 55 patients' survey from Greece. *Acta Anaesthesiol Belg*. 2012;63:63–68.