Listening to Leviticus

The fear of death follows from the fear of life. A man who lives fully is prepared to die at any time.

Mark Twain

HIS PARTICULAR DAY, MORE THAN MOST, I WAS WORKing without a net. Each maneuver intensified my awareness of the potential for disaster. Repeatedly, I pressed forward, making sporadic progress, until I was forced to back off once again. With each moment of self-doubt, I would pause, regain my focus, and force my hands to return to the procedure, although my mind was beginning to doubt whether I should indeed continue.

As I worked, the din of the operating room dropped away. I twisted my body-leaning hard into the tableand deliberately extended my right index finger more deeply into the surgical wound. I focused on the unseen surface of the mass where my finger was probing and dissecting, hoping for better exposure. Each time I rearranged my hand or one of the surgical retractors, I searched the operative field for unexpected surges of blood. I worked as deliberately as possible, proceeding from known to unknown, keeping assistants and supplies ready. If all went well, with a final sweeping flourish, the baseballsized tumor attached to the inferior end of the right thyroid lobe would soon emerge from the surgical opening like the crowning head of a newborn; only then would I know if I had exercised good judgment. As I stretched and pushed the unseen tissues, however, I wondered if that moment of release would ever arrive.

I had met the man lying on the operating table before me two weeks ago. Physically, he was substantial and roughhewn, with clear, intelligent eyes and an engaging, peaceful demeanor. Obstructive breathing symptoms had developed slowly over several months and he had gradually noticed more trouble when lying down or holding his head in certain positions. A series of studies revealed a large mass of tissue—a goiter—extending from the bottom of his right thyroid lobe into his upper chest, sharply displacing his trachea. A needle biopsy showed no sign of cancer, but, because of the worsening symptoms, he agreed that the mass would eventually require surgery. Now, after confirming that the goiter was growing, he made an appointment to see me.

During the initial office visit, we covered the standard discussion of surgical risks. "You know," I began, "there are hazards for all thyroid operations: infection, nerve injury, voice change, problems with the body's calcium levels, lack of improvement, bleeding . . . " I presented each of the potential risks and then discussed prevention and management. "Fortunately, complications are uncommon." He looked at me calmly. "Doctor," he told me, "you have to know that I am a Jehovah's Witness." He smiled and matter-of-factly outlined his convictions without any hint of embarrassment or sign that he was primed for an argument; he readily acknowledged that there might be real and serious consequences if he started bleeding during the operation. I was only too aware that the tenets of his faith prohibit the use of any blood transfusions. Despite the risks, he remained completely serene. My anxiety, on the other hand, started at that moment to take shape.

The Jehovah's Witnesses' basis for refusing transfusions puzzles those of us outside the faith. Although the use of blood transfusions grew steadily after the 1900 discovery of blood types A, B, and O, the prohibition of transfusions was not articulated by the Watchtower Society until 1945. Over the years that followed, the adherents stressed both the perceived dangers of transfusions and the benefits of bloodless surgery. To guide the faithful, the church has relied on several biblical texts including Genesis 9:4, Leviticus 17:10-12, Deuteronomy 12:24, and Acts 15:28-29. Although "transfusion" is not mentioned in the Bible, the relevant passages warn about the consequences of eating blood. For example, God, speaking through Moses in Leviticus, commands the people: "If anyone of the house of Israel or of the aliens who reside among them eats any blood, I will set my face against that person who eats blood, and will cut that person off from the people. For the life of the flesh is in the blood."¹ The biblical texts provide a powerful commandment as well as an ominous warning to the believer.

Before proceeding further, I needed to make certain that my patient and I had a complete understanding. Would he refuse all types of transfusions? "Yes." Would he agree to donate blood ahead of time in case we needed to transfuse it back into him at the time of his surgery? "No, I don't think so." Could we salvage his own blood, process it, and return it to him during the operation? "No." Did he realize that his blood cell count might possibly get so low that it could be very dangerous? "Doctor, I understand completely that by refusing blood transfusions, I might die. That is the choice I have made, and I am very comfortable with that choice." He paused, and then asked, almost casually, "So, will you do the surgery?"

Now it was my turn to make a choice. The mass was growing; clearly, at some point he would need surgery. On the positive side, patients undergoing thyroid surgery very rarely

©2008 American Medical Association. All rights reserved.

A Piece of My Mind Section Editor: Roxanne K. Young, Associate Editor.

⁽Reprinted) JAMA, February 27, 2008-Vol 299, No. 8 879

require blood transfusions. At the same time, his risk for significant blood loss was greater than usual because of the size of his goiter and its extension into the upper chest. His physical size might make access to critical structures difficult. If uncontrolled bleeding began, liters of blood could escape the wound in a very short time.

How would I feel if he died a presumably preventable death while in my care? Could I really adhere to his instructions in *every* possible circumstance? I was not certain.

"Do you want to go over things again?" I asked.

"That won't be necessary, Doctor. I understand and accept all of the risks. I will sign any forms that you require. I have faith, above all, that things will go just as they are meant to go."

I reassessed the scans and ultrasound images while he waited patiently. "Okay," I said, "let's take a look at the schedule."

"The sooner the better, Doctor. I'm ready whenever you are."

Now, two weeks later, this powerful man with the thick neck lay asleep on the operating table. Things were not going as well as I had hoped. The muscles had been difficult to separate cleanly from the superficial surface of the thyroid gland, and as I worked my way inferiorly into the upper chest behind the sternum, the passageway tightened dramatically. The limited space between the bone of the spine and the bone of the sternum was completely filled by the mass, barely permitting the insertion of a finger. I probed the depths cautiously. I had performed this maneuver often enough to realize that, with sufficient effort, the mass should suddenly become free of the surrounding attachments and miraculously appear in the wound, yet my anxiety was preventing me from exerting sufficient force.

As I repeatedly advanced my finger into the unyielding space, I was aware of the firm pressure pushing back at me. I continued to second-guess myself: Why had I so quickly agreed to operate on him? Had a voice whispered, "Sure, you can do that! No problem! When was the last time you needed a transfusion after a thyroidectomy?" I continued dissecting the enveloping tissues from the surface of the gland, working side to side, top to bottom, and front to back, resolutely forcing the tissues apart. I pushed deeper, adding a second finger and extending them both as far as they would reach. A few fibers separated, but the mass stubbornly stayed in place. Again I pushed. Then again. Suddenly, something deep and unseen gave way and the goiter noticeably moved upward into the palm of my right hand. As my fingers cradled the mass, I kept pressure on the walls of the unseen cavity. If the final releasing maneuver had torn a deep, undetected blood vessel, direct pressure would control the hemorrhage for the time being. As the mass was delivered up and out of the chest, I filled the space behind it with surgical sponges. Simultaneously, I repositioned my fingers and coaxed the goiter out of the wound. My eyes, however, continued to search the space from which the gland had just emerged.

"Suction, please. More sponges. Keep pressure right there."

I reached overhead and moved the operating room lights to better illuminate the depths. I released pressure and carefully removed surgical sponges one by one. A pool of blood appeared in the cavity. I watched apprehensively as the fluid level first rose and then dropped back into the wound, moving in cadence with the ventilator. I held my breath and stared for several seconds at the reflection of the lights on the meniscus of blood, finally convincing myself that nothing was welling up from below. The pounding in my temples gradually receded and I began to breathe again.

"Irrigation, please." I washed out the wound and controlled a couple of small bleeding points, preparing for final closure. Within minutes, the procedure had been completed, and the patient was being wheeled to the recovery room.

I located my laboratory coat and headed toward the family center. As I walked, I thought back to the initial clinic visit when he had placidly reassured me that he was "prepared to die." For my part, I had spent two weeks becoming increasingly anxious that I might suddenly be called upon to "protect" this man from his own convictions. What emergency course of action might I have recommended if he had experienced a massive hemorrhage during the operation? Would I have tried to force his family to consider a lifesaving transfusion? I was still not certain.

As I entered the family center, the patient's relatives rose to greet me. With the disaster averted, we passed handshakes all around and shared in his good news.

Bruce H. Campbell, MD Milwaukee, Wisconsin bcampbel@mcw.edu

Acknowledgment: Special thanks to colleagues Tony Braza, Nancy Havas, MD, and Richard Holloway, PhD, for their helpful comments and to the patient for permission to share his story.

1. Leviticus 17:10-12 (NRSV).