

ART IN MEDICINE

My First Cricothyrotomy

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As I sat on my porch, savoring the last few moments of the tropical sun before evening, I contemplated what a dramatic turn my life had taken. I was new to Africa, barely two months into my three-year assignment at a small mission hospital on the slopes of Mt Elgon in western Kenya. I was still not completely used to the strange tropical diseases; or the large open wards, with overflow patients often sleeping on the floor and chickens wandering through; or the enormous constraints that a third-world economy places on modern medicine, as we constantly battled to keep even the most basic medicines in stock.

As I pondered these things, I was dimly aware of a group of schoolgirls from the neighboring boarding school moving through the gate behind our house, across the hospital compound, and toward the outpatient building. They seemed to be carrying one of their own, and I assumed that someone had injured her leg on the playground. I briefly considered going to find out what the problem was, but instead elected to let the physician assistant see her and order an X-ray, knowing he would send for me if I was needed.

Soon the hospital watchman came across the courtyard at a half run; it was too soon for an X-ray to have been done, so I guessed that I would find something more serious than a broken leg. I grabbed my white coat and walked briskly toward the minor surgery theater in the outpatient building. About a dozen schoolgirls had congregated outside the door, some whispering among themselves, others apparently praying, one or two quietly sobbing. I made my way into the theater, where Ludha, the PA, quickly filled me in. Elizabeth, a 16-year-old student at the boarding school, had been playing field hockey when she suddenly began having difficulty breathing. Because of her swelling, Ludha assumed that she was having an allergic reaction, perhaps to a bee sting, and had given her adrenalin twice, but she had continued to deteriorate.

Turning to Elizabeth, I saw that her face and neck were puffy and her eyes swollen shut. As she answered my questions, her voice betrayed a hint of panic, and there seemed to be a peculiar quality to it, as though she were speaking to me from somewhere far away. She told me she had been hit in the neck with a hockey stick. Hit in the neck . . . difficulty talking . . . swelling. . . . As I touched her swollen neck and face, it suddenly dawned on me: what I was feeling was not the soft tissue swelling of anaphylaxis, but subcutaneous emphysema. Elizabeth's larynx was fractured: with every breath, more air escaped into the surrounding tissues, causing more and more swelling. Soon the swelling would close off her airway, and she would suffocate.

I started to feel as panicked as Elizabeth, but years of training had

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taught me, if nothing else, to conceal my anxiety. I began assigning tasks to the assembled nurses: one to start an IV, one to find a functioning laryngoscope from the main operating room, one to start sedating the patient, one to get a tank of oxygen.

The prospect of death clarified Eliabeth's thoughts. In her muffled voice, she alternated between "Doctor, *do something . . . do something*" and "Dear God, let me live. . . . If you spare me this day, I will dedicate the rest of my life to your service . . . please don't let me die!"

After what seemed like an eternity, everything was assembled. Elizabeth's voice was barely audible now, the swelling had extended all the way to her knees, and her blood pressure was dropping rapidly. As the Valium took effect, I tried desperately to intubate her. There was no suction, the oxygen tank was empty, the light on the laryngoscope intermittently gave out, the only ET tube we had was too big, and the inside of her throat was a mass of blood and swollen tissue. One of the nurses said there was no blood pressure or pulse. Others began leaving the room, and a chorus of wailing started to emanate from the schoolgirls outside.

I knew we had only one chance. "Scalpel!" I shouted, hoping my voice didn't betray the desperation I felt. As I made a small incision below her thyroid, a foam of blood and air erupted. Probing blindly through the swollen tissues with my finger, I finally felt her trachea, incised it with the scalpel, and slipped a tube directly into it. Immediately, Elizabeth's body began to draw air hungrily through the artificial airway. Her blood pressure and pulse quickly returned to normal.

The events that followed were important,

although perhaps not as dramatic. The air ambulance service, concerned about her inability to pay, declined to evacuate her. We removed the back seat from the hospital's only functioning vehicle, and, with a nurse and medical student accompanying, the driver took her to a private hospital in Kisumu, two hours away. The following day she was flown to Nairobi, where she spent the next two weeks recovering in the intensive care unit of the best private hospital in the country. The school had no idea how they would ever pay her bill, but luckily, the president of the country, for whom Elizabeth's parents had once worked as domestics, agreed to pay. Three weeks later, she was back in school.

I saw Elizabeth just once after that. At first I didn't recognize her—the swelling was gone and her voice was normal. She was very nonchalant about what she had been through, and I wondered at the time if she had any idea how close she had come to dying, how her survival was the result of a series of fortunate and improbable circumstances. Perhaps I was even hoping for some acknowledgment of my role, some expression of gratitude from her. What I initially interpreted as Elizabeth's nonchalance, or even ingratitude, I have since come to understand was actually a profound and fundamental characteristic of her culture. Whether it follows a freak mishap, such as Elizabeth's, or perhaps a serious bout with malaria or typhoid fever, survival is never the result of blind luck or even the skill of a physician. Elizabeth, well on her way to certain death, had slipped into unconsciousness with a prayer on her lips. She knew that her survival was not an accident, but that God had spared her life for some greater purpose.