



Volume 11
Issue 3
2017

Call Night

Nicole Leigh Aaronson

I had a bad feeling going into that night on call. Even as my co-resident signed out the patients on our consult list, I could feel my stomach knotting up.

Circling his finger at me, Dmitri asked, “What’s going on here?”

Embarrassed, I snatched my finger, on which I had unconsciously started chewing, from my mouth. “I’m just getting anxious.” The only thing pending was an OR case for a seven year old girl who had swallowed a coin that had become lodged in her esophagus. The pediatric OR had late running cases, and this case would not be able to start until one of the others ended and the room was cleaned. So that would happen at some point, but I probably had a few hours.

Pearl, the physician assistant who had been managing the floor patients, reminded me that there was a patient who had just undergone a major cancer resection with free flap transfer. This was an extensive surgery, in which a large portion of the patient’s mouth and jaw had been removed and replaced with a section of bone and tissue

from his leg. Since the procedure involved severing and then reattaching blood vessels, the post-operative protocol required the on-call resident to perform hourly checks for the first 48 hours after surgery. These checks required pricking the flap, located in the back of the patient's mouth, with a 25 gauge needle to assure that the blood was flowing quickly and bright red in color. Pearl lamented, "Dr. Patel is worried about how the flap is bleeding. He's already asked me who's here tonight, so I'm sure he'll be calling you."

Great! Just great! My night was looking worse and worse.

No sooner did I sit down to look over my notes when the pager rang with a new consult. A patient with end-stage lung cancer had been admitted for dehydration during chemotherapy treatment and was noticed to be hoarse. He had been seen by one of the speech pathologists earlier in the day; she had performed a flexible laryngoscopy, insertion of a small fiberscope down the nose to visualize the vocal cords, and per report from the primary team had noted minimal vocal cord mobility. Her note in the chart described the patient's difficulty swallowing thin liquids and indicated that he should have only nectar-thick liquids but said nothing about decreased vocal cord motion. The patient's voice had been weak and breathy for 4 months and he was having no difficulty breathing, but once a consultation was requested I could not refuse. Although I knew the speech pathologist's exam had been recorded and was locked somewhere in the clinic, there was no way of ob-

taining this video after hours on a Friday, so my only choice was to ask the patient if I could scope him again. He declined, which I understood, given that he had found the prior procedure very uncomfortable, but I was frustrated as I could make no further recommendations without assessing the patient's vocal cord function. I wrote a note recommending outpatient follow up for repeat examination. What a waste of time.

I went upstairs to check the flap, which was actually bleeding well, and tried to catch up on some paperwork before the girl who swallowed the coin was ready to go to the OR. An hour passed. I checked the flap again, and I headed downstairs to the OR. On my way, I received a text from Dr. Ivy telling me that she was sending a patient to the emergency room of one of the other hospitals, with vomiting following a transnasal resection of a tumor extending from the nose to the brain. She wanted a head CT done and an update once I had seen the patient. I told her I was going to the OR but that I would see the patient as soon as my case was done.

I met the seven year old coin swallower in the holding area outside the OR. Seven is a little old to be swallowing a coin, so I was predisposed to think she was an idiot. I asked her flat out how it happened. She claimed to be trying to flip the penny out of her mouth, a trick she had seen some unnamed male friends do, when the coin accidentally went the other way. Okay, so she was an immature seven. But she was so adorable, a chatterbox in Ariel pajamas, explaining that Ariel was no longer

her favorite Disney princess, having been supplanted in her heart by *Frozen's* Princess Anna. With her contagious smile and easy charm, I fell for her anyway. We brought her into the operating room, and once she had been put under anesthesia, I used an esophagoscope with a camera to look down her food pipe and locate the coin. Once I had the object in focus, I could see that the coin wasn't a coin at all; it looked like a button battery. Luckily for her, her esophagus still looked healthy, and there was no obvious burn injury from acid leaking out. Just as the battery was removed, my pager began to ring. I recognized the number of the pediatric emergency room, so I asked the operating room nurse to call over and see if it was something urgent. She said that the call was for a patient who had had an anterior neck mass excision earlier in the day who was now having some neck swelling and bleeding. Per the resident calling for the consult, the patient was perfectly stable with good vital signs, and I was not needed urgently.

I was waiting for the battery eater to wake up when my attending offered to wait in my place so I could go check on the new kid. When I got to the ED, I was about to look for the patient on the triage board under his chief complaint since the OR nurse had taken down neither his name nor his room number. Before I could even get that far, I ran into his mother who was tearing down the hallways looking for anyone who would listen. "It's getting more swollen. He's having trouble breathing. Help me."

I rushed into his room. From his dad, I gathered that he had been doing well until he had vomited and then started to have some oozing from his incision. Since that time his neck had begun to swell but the swelling seemed to be enlarging rapidly in the last 30 minutes. I looked at him. He had a tangerine-size swelling bulging out of the front of his neck; the small drainage tube that had been placed during surgery was still in place in the midline, but there was no blood leaking out. When I touched his neck, he winced in pain. He did not speak but he would nod to answer my questions, so I was not sure if he could not speak or would not speak.

“Does it feel tight?” He nodded yes. “Does it feel hard to breathe?” He nodded yes. “Is it getting worse?” He nodded yes. He was awake and alert and his breathing was regular. I looked at the monitor and saw that his oxygen saturation was perfect at 100 percent. But he was leaning forward in the tripod position staring at me with eyes wide open, pupils dilated and not blinking. Even though he was not speaking, I knew he was trying to tell me that he was desperate for my help. And even though he looked stable, kids can crash quickly, going from oxygen saturation of 100 percent to respiratory distress in the blink of an eye. I knew that this little boy was bleeding into his neck and that I needed to open the incision and clean out the clotted blood to protect his ability to breathe.

The staff in the pediatric ED did not seem to share my view of the urgency of the situation. They had not set up any anesthesia equipment for possible intubation, and there was no physician to

be found. I asked for a Frasier tip suction, a narrower suction than the plastic ones readily available, and the nurses told me they did not have any. I asked for a nasal hemorrhage kit which I knew would contain one and grabbed a plastics suture kit from the closet. The mom was still frantic in the hallway.

“I am going to take care of this. This happens sometimes. I am going to take care of it, and he is going to be okay.” I walked back to the boy and pulled out the drain from the midline of the incision. The head nurse wanted to stop and administer pain meds because she thought that the procedure would be too uncomfortable. I said no; any sedation could compromise the boy’s ability to breathe. While I did not want him to be in pain, the risk to his airway was too great, and my paramount goal was to keep him safe.

I used a metal clamp to open up the sides of the incision to break up the clot and pushed from above and from the sides to drain out the blood. Over a handful of blood started spurting out soaking his neck and back and staining the bed sheets. “I’m so sorry. I’m so sorry. I know it hurts.”

Out of the corner of my eye, I could see the father sobbing openly in the corner, tears streaming down his cheeks. “I know this looks bad but it’s going to help. Does it feel less tight?” He nodded yes. He was blinking now. I told the parents that we needed to take him to the operating room to clean out the rest of the clotted blood, stop the bleeding, and close his incision. They signed the consent form, and I booked the OR. Filling out the paperwork,

I learned that his name was Ryan. Until that point, the fact that he was a boy with a post-operative neck hematoma had been all I had time to know.

My attending was pleased with my swift management of what could have easily devolved into an acute airway compromise. In the operating room, there was diffuse bright red bleeding. We evacuated another cupful of blood and controlled the bleeding with cautery. We replaced the drain to allow the egress of any blood that might collect and loosely closed the incision. It was better if bleeding occurred that it leak out the incision rather than collect under a tight incision and compress the airway. While I was waiting for Ryan to wake up, one of the physician assistants from the emergency department of the other hospital called to say that Dr. Ivy's patient was roomed and awaiting my evaluation. Ryan woke up quickly, and I rolled him into the PACU. I was long overdue for a flap check on my floor patient, so I decided to take a shortcut through the family waiting room, sure to be deserted at this hour, to get back to the top floor of the cancer pavilion. Ryan's mom saw me through the window and rushed over throwing her arms around me in a hug. "I was so glad when I saw you. No one was doing anything. I know you saved his life."

"Thank you. I know it was scary downstairs. I just wanted to make sure he'd be okay."

Just as I got into the flap patient's room, one of the nurses came running in the room to get my attention. "He's not my patient, but the guy down the hall is bleeding a lot from his mouth."

“Did you call the intern?” I knew this nurse well, and although she was vigilant and cared deeply about her patients, she was prone to overreact and often called the senior when she did not like or trust the intern. Figuring it wasn’t real bleeding and likely just old blood mixed with saliva, I was hoping my intern could go triage the situation and save me some time.

“She hasn’t called back.”

“Okay, I’m coming.”

I was on my research block that month, away from active clinical duties, so I had not cared for this patient before. Checking my notes, I saw that this was a patient with tonsil cancer who was about a week out from a tonsillectomy. Yesterday, he had presented to the ED bleeding out of his mouth from the tonsil bed and was taken to the OR emergently for cauterization and control of post-operative hemorrhage. I vaguely remembered my chief resident Solomon, who had taken him to the OR, telling me just how bad he looked. He had been pale and clammy, with his blood pressure barely above the threshold to be read by the automatic blood pressure cuff. He had required a blood transfusion due to the drop in his blood counts on laboratory findings, but had been stable since the cauterization, with no further bleeding.

When I got in the room, he was sitting over the toilet dripping blood into the hat in the toilet usually used to collect urine. There was probably about a quarter of cup of blood in the bucket and the bleeding while persistent did not appear to be brisk or occurring at great volume. I asked the pa-

tient to gargle with some ice water. The ice water would help to constrict the blood vessels further slowing the bleeding and would clear out the old blood allowing me to get a better look at from where the bleeding was coming. Even with the gargles, I could not pinpoint a single bleeding spot. There seemed to be a somewhat diffuse oozing from the tonsil bed. At that point my intern for the night, a urology intern by training, came in and asked how she could help.

“I’ll take care of this. Can you go do the flap check on my patient in 202?” The nurses were able to find me some silver nitrate sticks, which I used to cauterize the areas of bleeding. Silver nitrate causes a chemical burn which, while effective in causing hemostasis, is painful for the patient and has a terrible taste. But the bleeding stopped. I told him we’d be checking in to make sure he didn’t bleed again and that we would draw another set of labs to check his blood counts but that hopefully the worst was over. I had to get to the other hospital; Dr. Ivy’s patient had been waiting for hours. I left the nurses my pager in case of further bleeding and headed off to the garage.

On the drive to the other hospital, I turned on my own mix CD made years after mix CDs had gone out of fashion. It was halfway through track 16; I restarted it from the beginning and tried to catch my breath as Neil Young sang about his search for a heart of gold. Neil was just winding down as I pulled into the other garage. I found Dr. Ivy’s patient and examined her. She looked fine on exam and her nausea had since abated. Her vision

was intact, and she denied leaking from her nose. The CT scan I requested over the phone had not been done yet, which normally would frustrate me but in this case was actually a good thing, since the physician assistant had ordered the wrong scan. At least now I could make sure the right scan was obtained the first time. Furthermore, no one in the radiology or emergency departments had noticed that the patient had a contrast allergy and would require a four hour premedication regimen, without which she could be at risk of anaphylaxis. I found the attending who had taken over for the patient at the eleven p.m. shift change. He agreed to change the scans and to start the premedication. I called Dr. Ivy to update her, and she asked for another update when the scan was completed.

I drove back to the other hospital, parked my car in the underground physicians' only lot, and went directly to the fifteenth floor to do my next overdue flap check. Once again, just as I got into Mr. Perez's room, Olivia rushed in to tell me that the patient down the hall was bleeding. "He's really pouring out now. You need to come right away."

This time the blood was coming continuously in a thick stream. There was at least a cup and a half full of blood in the toilet hat. "You're not going to put those sticks in my throat again, are you?"

"No. We need to do something more to control this bleeding. I'm going to have the anesthesia doctors come up and place a breathing tube to keep your airway safe. Then we're going to put you to sleep, and I'm going to put packing your throat to stop the bleeding. We'll be moving you back to the

intensive care unit, and you will likely be there a couple of days. We may have to take you back to the operating room to stop the bleeding.”

“Do whatever you need to do.”

I stepped out of the room and asked Olivia to call for the dangerous airway team. While anesthesia, trauma, and the SWAT nurses gathered, I felt my phone vibrate. It was my intern Sam, who was rotating that night in the ED. His attending had asked him to sew up a lip laceration that went through the red part of the lip onto the skin, and he wanted my advice on how to best approach repairing it. I told him I was a little busy but that I’d be there when I could. Anesthesia wanted to take the patient to the operating room for intubation to do it in the safest place possible. The trauma surgeon agreed to staff the case, and the SWAT nurses facilitated procuring a bed in the SICU for after the intubation. We wheeled the patient to the OR. While we were setting up for the intubation, I saw a text from Dr. Ivy. She had already seen the CT scan on her patient and felt that she had more air in her head than she had had immediately post-operatively, raising concern for a leak of cerebrospinal fluid. She wanted her admitted to the surgical intensive care unit, started on IV antibiotics, and made NPO for possible surgery the next day. I apologized for my delay and said that I would get her a SICU bed as soon as soon as I got out of the OR.

After what felt likely an eternity of waiting and what was actually about ten minutes, the anesthesia team proceeded with induction and intubation. Their procedure went smoothly, and I packed two

rolls of gauze against the tonsil bed in attempt to generate enough pressure to tamponade the bleeding. While waiting on the transport team to move the patient to SICU, I called over to the ED at the other hospital and asked them to book Dr. Ivy's patient to the intensive care unit. I was just beginning to feel caught up when the anesthesia team alerted me that the blood was already saturating and overflowing the packing. I repacked again, exerting even more force. We left the OR, but by the time we had traveled the three flights up to the SICU, blood was once again soaking the packing and dripping out the corners of the patient's mouth. I repacked again but knew that the packing would not be enough to stop the bleeding. This was clearly bleeding from a large artery that required a more definitive management.

I called my senior resident; our attending needed to be aware of the situation before we could further escalate care. Felix came in and agreed with my assessment that it was time to involve Dr. Yamamoto. Dr. Yamamoto, a known early riser, answered Felix's call on the first ring despite it being two a.m.; he agreed with asking the interventional neuroradiologist on call to do an angiogram and possible embolization of the bleeding vessel. With a plan in place, Felix called the patient's family while I went to see a consult that had been waiting in ED.

My ED consult was for a patient with anywhere from two days to a week of sore throat as she variably reported it during her multiple assessments. A CT scan done several days before that had showed a tiny area of fluid collection next to

her right tonsil, but she had refused drainage at that time. She had been given a dose of antibiotics while in the ED and discharged home. She now was back with continued complaints of sore throat. When I got there, she was sound asleep; waking her required a combination of shaking her arm and shouting her name, and keeping her awake through my questions required significant effort. Once she was finally awake, she began to complain of severe chest pain. On my neck exam, she did have trouble opening her mouth, the hallmark sign of an abscess. She did have inflamed-looking tonsils, but I would not have suggested drainage for her if she did not have the CT scan from several days before and subjective complaints of worsening pain since then. I asked her if she would be willing to undergo incision and drainage, and she said, "I'll try anything to make this go away." I gathered my equipment and tried to talk her through the procedure.

"Don't tell me anything. I don't want to know what's going to happen."

So, of course, when I went to inject the numbing medication into the back of her throat she jumped away from me. "What the hell was that?"

"I tried to tell you that the numbing medicine was going to feel like a pinch and then a burn but you told me not to. Can we try again?"

She acquiesced, and after several minutes of deep breathing, she allowed me to put the needle in her throat. As soon as I started to inject, she grabbed my waist in her massive hand and pinched as hard as she could while pushing me down the bed away from her.

“Try not push me away from you or I can’t see what I’m doing, ma’am.”

She then turned looked me in the eyes and defiantly held up her middle finger to my face.

I stayed calm, despite the stinging where her fingers had dug into my waist. “Do you want me to continue?” She allowed me to aspirate the collection, once again pinching me while I inserted the needle, but refused further drainage. I would have fought harder if I thought she really needed further drainage and if I could have stood being in her room a minute longer. But I was exhausted and tired of dealing with her and her dramatics. I told the ED provider to place her on a course of clindamycin to treat what was likely just a bad case of tonsillitis.

I found Sam who was with his lip laceration patient a couple of beds away. It wasn’t such a bad cut, but she was a pretty young girl, and ordinarily I would have taken him through the laceration. But frankly, I was exhausted and didn’t really have the time to spare since I needed to round and write notes on all the floor and ICU patients by five-thirty. So I gave Sam a few pointers on the types of suture to use and apologized for being so incoherent. He was forgiving of my uncharacteristic stinginess with my attention, as he was worn out from his night as well and looking forward to the end of his shift at seven.

Since Felix was already wide awake and had nothing else to do to fill the time before our attendings showed up for formal morning rounds, we decided to go see all the patients together.

We started with the adult patients, who all looked as expected, and then moved on to people I was more interested in: the kids. The battery swallower looked fine. She was eating, with no complaints of pain in her throat or chest. On exam, she had no crepitus, which would be concerning for a hole in her food pipe, the most serious possible complication of an esophageal injury.

We left her and moved on to my neck hematoma patient in the PICU. “How are you feeling, Ryan?”

“Great.”

Sleepy as I was, it occurred to me that that was the first time I’d heard his voice. Ryan’s mom said, “He told us that when he talked before it felt like he was swallowing air and it made it hard to breathe. He remembers everything.”

Ryan said with the matter-of-factness of a seven-year-old sobered by his own life experience, “I was dying. The lady came and put a long needle in my neck. It hurt, and she kept saying she was sorry. She saved me.”

I checked his neck, which was soft and flat, with no evidence of re-accumulated blood. There was a scant amount of old blood that had leaked from the drain as expected. He looked bright-eyed and ready to go. “You look good as new. We’ll move you out of the intensive care unit this morning, and if you’re still feeling well this afternoon, you’ll get to go home.”

As we walked out of the room, I said to Felix that helping Ryan had been the only thing that had made my night worthwhile.

“You did a good thing. He could have died if you hadn’t done anything.” I sat down and wrote my notes. Dr. Yamamoto came to round on his patients and told me that when his patient was done undergoing embolization, he wanted me to go down to the interventional radiology suite to remove the packing. That way, if there was any re-bleeding, it could be addressed immediately before the patient left the procedure room. I worked on the discharge paperwork for the floor patients who would be going home that day—there were five—and waited for my pager to ring. It rang about an hour later. I went down to down to the Interventional Radiology suite and removed the rolls of gauze. I suctioned the tonsil bed vigorously to remove the old clot and to induce any bleeding that was going to happen. There was no bleeding. I used the next hour to wrap up the remaining paperwork and then quietly made my exit, happy to turn over the hourly flap checks to Dmitri.

I moved my car back into my garage and called my parents on the way. They told me to get some sleep and that we would meet up later that day to prepare for a trip to Maine. I got into my apartment and texted my co-resident and ally Steven about how my call had been one of the worst ever. I brushed my teeth, stripped off my scrubs, and crawled into bed, my head throbbing and my legs aching. Just before I drifted to sleep I saw Steven’s message, “Sounds like a rewarding night.” I had to smile, because in a way it really was.

Nicole Leigh

Aaronson is a pediatric otolaryngology fellow who has published various short stories. Email: nicole.aaronson@gmail.com