Military Medicine

Christmas Island Rescue: A True Story

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So there I was, innocently munching a hamburger and fries in the Tripler cafeteria, a relative rarity for a busy OB/GYN resident. I sat next to COL (Dr) Sam Heth, who was just finishing his lunch.

"Hey, did you hear about the mission to Christmas Island?" he asked.

"What mission?" I replied through a mouthful of fries.

"Well, apparently there's a 35 year old gal down there who's about 34 weeks pregnant who came in with vaginal bleeding. She had some spotting in the wee hours of the morning, but it's worsened and the doc down there needs some help. So he sent out a distress call to the Coast Guard who transferred the call to us. The command center may send someone down there." He collected his tray to leave.

"Well, if they need a resident to go along, let 'em know I volunteer."

"Will do. See ya!" he said as he left.

I polished off my burger and went back to clinic, not really thinking too much more about this conversation, and certainly not thinking that I might be off to this island—God only knows where it might be.

My first patient was for her initial OB appointment, a 246-pound lady with a lot of questions and a fair amount of risk factors for pregnancy. After the preliminaries, I told her to get undressed for the exam. I started the exam and my beeper went off—it was MAJ (Dr) Bruce Chen, one of staff our perinatologists. My nurse told me who it was and said it was urgent. I was in the middle of the exam, so I told her to put it on speakerphone.

He said, "I hear you're going with us to Christmas Island, is that right?"

"I'd certainly like to, but I don't know if it's official," I shouted back to the phone as I withdrew the speculum.

"Well, it's official—you're going, so hurry up. The plane takes off at 2:30 from Barber's point, so you'll have to move. You have your BDUs ("Battle Dress Uniform"—Army fatigues) and dog tags, don't you?"

"Sure do. I'll meet you upstairs in a few minutes" I said as I completed the pelvic exam.

"No," he responded, "You have to give Sam Heth a ride out there. His car is broken and he needs a lift. Find him and get going over to Barber's. You don't have a lot of time. Talk to [Dr] Linda [Brown] about covering your clinic." Linda was our chief resident. She inherited these kind of scheduling headaches. I wondered why she wasn't going. I figured she would have first pick at something like this —it sure sounded exciting to me.

I glanced at my watch. It was 1:20. "Crap," I muttered under my breath, just as my nurse brought my next patient back.

"Forget it, Aja, she's going to have to see someone else. I gotta go catch a plane to Christmas Island—wherever that is. Some obstetric emergency. Talk to Dr Brown to see who can cover for me."

As I quickly tried to finish with my initial OB patient, my beeper became a hot potato as Dr Heth, the ER, and our Coast Guard point of contact all began calling almost simultaneously. I called home and left a message for my wife on our answering machine explaining that I was being sent to some island on an emergent medevac and that I didn't know exactly when I'd be back. (As it was her tennis night and I was expected to look after our two young children, it was OK to be sent; I wasn't so sure how it would go over if she found out I'd volunteered). I ran out of the office and into Dr Brown—"Hey Linda, did you hear about this Christmas Island thing?" I quickly explained the situation and ran out of the clinic, gratefully leaving her to sort out the shambles of my patient schedule. Only later did I learn that the reason Linda didn't go was that she was never issued dog tags.

I ran up the stairs to L&D, where I could change out of my scrubs and into my BDUs. At the top of the stairs, I literally almost ran into Drs Heth and Chen as they were wheeling a cart full of medical supplies to the elevator. These were to be delivered to the ER and thence by ambulance to Barber's Point NAS, where the Coast Guard aircraft were located. We—Tripler—had never been tasked for a mission such as this and it simply didn't fit into anyone's experience to pack for a potential Cesarean Section half an ocean away with no warning and an unknown amount of support on the other end. It was at this point that I learned that in addition to the OB guys (the three of us), we would also be supported by a staff Neonatalogist MAJ (Dr) Wayne Hatch, an OB and Peds nurse, and a respiratory therapist. As we were unsure exactly how far along in gestation this patient was, we wanted to make sure we had all the personnel and equipment we might need not only for an emergent c-section but also for a neonatal resuscitation. It was at this point that I learned that Christmas Island, or Kiritimati, was an isolated island about 1700 miles due south of Oahu. Medical resources were reported to be minimal, and although commercial airliners could get there in 3 hours, our flight time in our Coast Guard Transport was about 5 hours. There were no Obstetricians on the island, and one seasoned Family Practitioner provided most of the medical care to the inhabitants of the island. One generalist alone on a tiny speck of an island in the middle of the Pacific—the guy's got a lot of guts, we all thought.

The three of us stood at the front desk of L&D and mentally checked off what we figured we'd need and what we had on the cart: C section pack, lots of different types of gloves, gowns, three quarter O.R. sheets, drapes, masks, iodine scrub and neonatal intubation and resuscitation equipment. Several units of O negative blood were packed on dry ice and waiting for us in the ER.

"What about anesthesia?" I asked.

"Well, hopefully all these preparations won't be necessary as we'll go down there, load the patient on the plane, and head back to Tripler," said Dr Heth. "Then, if we have to, we can do her section here. If we must do a section down there, I've brought some Lidocaine and we'll have to do it under local. Hopefully, that won't be necessary."

Youch, I thought. I'd never seen a section done under local before, and I didn't want to start now, but without any time left and without bringing a ton of anesthesia equipment down to Christmas, it seemed

like the most reasonable course of action.

Just then one of our nurse anesthetists strolled by and asked what all the commotion was about. After a quick brief, he asked what we were doing for anesthesia. "Local, huh?" he responded to my quick explanation. "Here, take this," he said as he tossed me a bottle of ketamine.

"How much of this do I use?" I asked as I stuffed the small bottle in my pocket.

"Oh, just titrate it until she gives you that thousand mile stare, then you know you're good to go. But it ought to take about 1-2 milligrams/kg." I recalled a mission to Africa that our Chief of Family Practice, COL (Dr) Michael Noce had taken in the recent past where ketamine was the major form of anesthesia. He had described all types of operative procedures that had been done with it, and it had worked great. Our anesthesia department was now complete.

We quickly ran the equipment to the ER where an ambulance was waiting to take it to Barber's. "You *do* know where the Coast Guard element is at Barber's, don't you?" asked the ER physician who was coordinating the transfer of equipment. He had also been ordered to give us a lift out there, but neither Dr Heth nor myself wanted to go in a stuffy bumpy ambulance. Air conditioning and padded seats go a long way in times like these.

"Sure, sure," replied Dr Heth, "Been there many times before. No problem." Dr Heth and I then trotted out the front door to my car to get our stuff at our respective homes and high tail it out to Barber's. As we exited the ocean side entrance to Tripler, he looked over at me and asked, "You know where it is, right?" "Well, I think so," I replied, "And if we have any trouble, we can always ask." Oh, God, I thought, I hope we don't miss this stupid plane driving around Barber's looking for the place.

After getting his stuff, we motored on over to my place in the Aliamanu Military Reservation housing area, all the while hoping not to run into my wife and having to explain all this. Thankfully, this was the kids' swimming lesson day, so they were out at the pool. We then took off for Barber's Point and were stopped at the gate as an ambulance, with lights and siren blaring, roared past us just as we were asking the gate guard instructions as to how to get to the Coast Guard portion of the base.

"Hey, that's our stuff!" exclaimed Dr Heth as the vehicle sped past. "I'll bet you ten bucks it is. Just follow them."

It was indeed our stuff. We arrived behind the emergency vehicle, parked and ran out to find Dr Chen who had the only cellular phone and was therefore the de facto leader of our little band. He informed us that the flight had been pushed back to 3:30.

Hurry up and wait. I thought that mode of thinking was out these days. Oh, well. After all the earlier rush rush rush, the mood now seemed strangely relaxed and unhurried. The "sense of urgency" we often talk about in obstetrics was now somewhat absent.

We watched as they loaded up the plane. It was a converted C-130, the type of plane used in airborne operations. It had been painted white with the red stripes of the Coast Guard, and outfitted for search and rescue. First to go on was a pallet of seats—our seats, as it turned out. Twenty-four somewhat shabby coach-type seats in all, it was loaded as a single unit via forklift. We had anticipated jump seats—these were much better. Next was another pallet with a patient bed and infant warmer. Finally, our stuff was loaded last and secured.

We boarded the aircraft and found seats. I sat in front so that I could take advantage of the leg room. The crew chief gave us a quick briefing of the aircraft as well as what we could expect from Christmas Island. He told us it was a very under-developed airfield and island. Expect a bumpy landing and little to nothing in the way of luxuries. They'll probably take you to the hospital in a pickup truck so you can evaluate your patient. OK, got it.

We were soon on our way. After we had taken off and it was safe to move about the inside of the plane, I explored its capabilities. Where there had once been jump doors for paratroopers, there was now a floor to ceiling glass enclosure to aid in searches at sea. The front part of the cargo compartment was filled with rescue equipment—first aid kits, life jackets, inflatable rafts, and other miscellaneous equipment. As I gave myself a tour of the plane, I noted that Dr Heth was also exploring our newfound temporary home. Dr Chen was fast asleep in the back row of seats. Not unlike morning report, I thought. Since the trip wasgoing to take a bit less than five hours, we had some time to kill. The crew chief was answering questions we asked, then asked if we wanted to "hook in" to the crew radio line and listen to their conversation. What else was there to do? We assented, and he gave Dr Heth and I headsets to listen in. Unfortunately, there were only two headsets available, so we shared them with the rest of the team as the flight commander drilled his subordinates on emergency procedures and we all listened to Credence Clearwater Revival's greatest hits in the background. The aircraft commander then called with an update on our patient. There was a rather strung out coconut relay to get info to us on the plane. We had to talk to the aircraft commander, who had to talk to the tower at Christmas Island, who had to talk with someone on the phone at the hospital, who spoke with the attending physician. Through this system, we found that our patient had a blood pressure of 122/72, a pulse of 120s, a fetal heart rate of 160s and that she was "hemorrhaging profusely."

We all looked at each other and spread the word throughout the group. It was clear that this was no longer going to be a "scoop and run" type of affair. By the sound of things, our patient was bleeding severely and starting to go into shock. We all huddled to collectively gather our thoughts again when the pilot was heard to curse over the headphones. We couldn't hear Credence anymore, and there was no further grilling of the lower ranks on emergency procedures. Something was up.

The crew chief walked quickly back from the cockpit. "Have everyone sit down," he shouted to me over the roar of the aircraft.

"Why?" I shouted back.

"There're something wrong with the plane."

"Everyone sit down," I repeated to my colleagues, "There's something wrong with the plane."

We took our seats and waited. The headset I had was passed to Dr Heth who spoke with the aircraft commander. What we learned was this: Part of the power system of the C-130 aircraft is a nickel cadmium battery located near the nose of the aircraft. During operating conditions, this battery can get hot. It has a heat sensor located on it to detect if the heat should become excessive, because if the battery gets too hot, it can spontaneously combust. If this happens, it can burn through the aluminum casing that holds it and fall out of the aircraft, plunging the battery, the plane, and us, to our doom. We had heard the pilot curse when he saw the little red warning light go on indicating the battery was too hot and may explode. It is one of those conditions where if the warning light

indicating a hot battery comes on, the textbook answer is to land the plan immediately. We were fifteen minutes from half way to Christmas Island, and the textbook told us to turn around and head back to Hawaii.

"How sick is your patient down there, sir?" the pilot asked Dr Heth.

"Well," he said, "I can't be sure as we can't directly evaluate her. But it sounds like she's very sick and she might die."

Silence.

The pilot explained the problem with the battery, explaining that this may lead to an in flight fire and perhaps the necessity of ditching the aircraft at sea.

"Well," said Dr Heth, "If I had to ditch, I'd much rather ditch nearer to Honolulu than to Christmas Island. I can't make the decision for you, but you've got one life down there and about a dozen up here."

More silence. About 30 seconds later, we felt the plane banking steeply as it turned back towards Barber's Point. Our little team was crestfallen, but now we feared for our own safety.

One of our nurses, (CPT) Janet Goodart, leaned forward and told me, "Dr Crisp, I'm kind of scared."

"Oh c'mon," I replied, "I'm not going to be scared until they start handing out the life vests." As God is my witness, about 15 seconds later, the crew chief grabbed two life vests and took them up to the cockpit. Janet looked at me with that "well-are-you-scared-now?" look. We were all then supplied with high speed official Coast Guard approved life vests—well, almost all of us. There were seven of us, but after the crew got theirs, there were only five of the high tech life vests left. The last two folks in our group (Dr Chen was one of them) got what looked like leftovers from Wal Mart—big orange pouches with a self inflatable life vest equipped with a whistle. This is contrast to our vests which had radio transmitters with a radius of 60 miles, flashing lights, flare guns, dye for the water and signal mirrors.

We plodded on homeward, every minute expecting the nose of the aircraft to start on fire. We were taught how to use our radios and our flare guns, and Dr Chen figured out his whistle. We made plans to unload our equipment from this damaged aircraft and reload it onto another aircraft so we could quickly make an about-face to Christmas Island. As we approached Oahu, we were told that emergency vehicles would be surrounding the aircraft and we were handed flashlights so we could beat a hasty exit from the aircraft and not get run over by the fire trucks.

We landed without incident. The tail of the plane opened, the lights went out, and we all trooped out, our flashlights lighting the way. We assembled 100 meters off the tail end of the plane and watched as the fire trucks converged on the plane and fire fighters in heat reflective suits began inspecting its nose. We asked which of the other aircraft parked on the tarmac was the one that we were going to be taking back to Christmas Island, as we needed to get going now.

At about that moment an officer approached from the tower and informed us that the mission had been canceled. The patient had died about 30 minutes prior to our return to Oahu. As it happened, she would have died about fifteen minutes prior to our arrival on Christmas Island.

More silence.

Yet more.