

## Never Forget to Check Your Leads!

**In the Emergency Department**

I was working as a part-time faculty member of an emergency medicine residency program in downtown New Orleans and serving as a staff physician at a suburban emergency department (ED) across Lake Pontchartrain. On occasion, I would work a shift downtown from noon to midnight, followed by a shift from 7 AM to 7 PM in the suburbs. I would usually drive straight from the first hospital to the next, where I would sleep until the nurses called to wake me up the next morning so I could shower before my next shift.

On one such morning, the phone woke me shortly after 6 AM. As I walked over to the shower, I noted an ambulance passing below, sirens blaring, on its way to the ED. I knew that whoever was being transported would be attended to by the night shift physician until I went on duty at 7 AM. As I stood in the shower waiting for the water to warm up, the phone rang again. One of the ED nurses informed me that they had just received an apneic, bradycardic man who had recently had cardiac surgery. The physician on duty had intubated him and was trying to stabilize him, but the bradycardia was not responding to atropine. The physician on duty wanted my help. I turned off the still cold shower water, put on my dirty scrubs from the day before, and headed downstairs.

When I arrived at the ED, I saw the patient on a ventilator; heart rate was approximately 30 bpm. He had a fairly new sternotomy scar on his chest, but he seemed quite young to have just had a coronary artery bypass. When the night shift physician and I discussed the case, I suggested that if the patient should suddenly code, there might be an indication for an immediate thoracotomy, exploration, and open cardiac massage.

The night shift physician left the room to discuss the case over the phone with a cardiologist. I stood there sleepily, looking at the patient and wondering when, if ever, I would be able to take my shower. Suddenly, the nurse exclaimed that the patient was asystolic. I asked for a scalpel and cut the patient down to

his ribs with a left thoracotomy incision. Then the nurse said the words that made me fully awake, "Oh, no . . . it was just that a lead came off!"

While the nurse reconnected the loose wire, I stood there looking at my incision, wondering how I would explain it to the other doctors. With the lead back in its proper place, however, we noted that the patient was asystolic after all. I continued making the incision and spread the patient's ribs. Inside the chest, I noticed a perfectly motionless heart. I reached in and began cardiac massage. After a few squeezes, the heart muscle began squeezing with me. After a few more squeezes, the heart was beating strongly and the nurse reported a good blood pressure. I then took my hand out of his chest and watched. After a minute or so, his heart again slowed and stopped. Once again, I performed open cardiac massage, and, once again, the patient rebounded with a strong pulse and a normal QRS interval on the monitor. These findings were present only as long as I manually helped the heart squeeze.

The hospital's cardiac surgeon arrived and explored the patient's chest but could not determine why the patient's heart was acting this way. Only when we contacted the cardiac surgeons from the tertiary referral center across Lake Pontchartrain, where the patient had had surgery, did we find out the whole story: the patient did not just have coronary artery bypass surgery but instead had just undergone cardiac transplantation. He was undergoing rejection. The other hospital flew their cardiac surgery team across the lake, placed the patient on cardiopulmonary bypass, and took him back to their hospital. He died there the next day, despite their efforts.

Two lessons can be learned from this case. First, atropine does not work on a denervated transplanted heart. Second, never forget to check your leads!

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