

## A healing heart

Valerie C.L. Athaide, MD

She smiles up at me as I enter her room and attempts to say hello. Her voice is hoarse from the endotracheal tube that was removed just hours ago. I paste a huge grin on my face, trying to forget that this woman is my age and is going to need a heart transplant. We look at each other for the first time, and I know she is scared but braving through it. I ask her a few routine questions and chat to her about her daughter. She is just 4 months old. I unfold my stethoscope from around my neck and gently sweep aside her gown to listen to her heart. There are bruises over her sternum—a telltale sign of the 100 minutes of cardiopulmonary resuscitation she had when she arrested. I softly place the diaphragm of my stethoscope on her chest but cannot hear her heart sounds over the sound of the left ventricular assist device (LVAD). She fearfully asks me if things sound okay. I am honest and tell her that all I can hear is the machine that is keeping her alive, but I reassure her that the machine is doing its job. This seems to satisfy her, and she relaxes.

Over the ensuing days, as a resident on the coronary care unit, I look after this young woman. Each day, I am greeted by the same strong smile and fearful eyes. Each day, I assess her for signs of heart failure and strain to hear heart sounds over the sound of her LVAD. One morning, I enter her room, and she is grinning. Her voice has finally returned, and she excitedly states, “I can feel my pulse!” Just as excited as her, I search for radials first and am rewarded with nice steady, regular pulsations. I pull back the sheet from her feet and am overjoyed to palpate weaker yet definitely present pedal pulses. Her heart has started doing its job again. I excitedly unfold my stethoscope

from around my neck and place the diaphragm on her chest. I am elated as I hear the familiar S1, S2 loudly and clearly, and the sound of the once deafening LVAD is distant and barely audible. I smile at her, and she immediately knows I have good news. Her heart is working.

I continue to go about my morning routine, rounding on the remainder of my patients, but I excitedly tell every resident on the team about what I had heard. The joy of my discovery starts to fade as I consider it a little more, and I begin to doubt myself. Were her heart sounds actually louder? Or had I imagined it? What does a second-year emergency medicine resident really know about recovery from a viral myocarditis that at one point left the patient on extracorporeal membrane oxygenation with an ejection fraction of 10%? The LVAD was the only thing keeping her alive, wasn't it?

The team finally convenes to round on all of the patients. When it comes to my patient, more than a dozen people are crowded around, including a cardiac surgeon, a heart failure specialist, and my staff cardiologist. We discuss her medications and how they should be optimized. We discuss the fever and white blood cell count she has had and her antibiotic coverage. I then hesitantly mention my discovery of her louder heart sounds. The heart failure staff laughs heartily and says that I must be pretty skilled to hear heart sounds over an LVAD. I am not fazed and insist that I did find it difficult in the previous days, but today is different. The surgeon looks at me seriously and says that he believes me. We order an echocardiogram to assess her ejection fraction. I am hopeful that I am right.

From the Department of Emergency Medicine, University of British Columbia, Vancouver, BC.

**Correspondence to:** Dr. Valerie Athaide, Vancouver General Hospital, 899 West 12th Avenue, Vancouver, BC V5Z 1M9; vathaide2009@meds.uwo.ca.

Submitted December 24, 2010; Accepted April 16, 2011.

This article has been peer reviewed.

© Canadian Association of Emergency Physicians

CJEM 2012;14(1):60-61

DOI 10.2310/8000.2011.110457

I complete the rest of my day as I normally would. My patient has a good day as she sees her daughter for the first time since she went to hospital for what she thought was a cold. As the day draws to a close, the cardiologist pulls me aside. The echocardiography staff has just informed him that my patient's ejection fraction is 50%; she will not need a heart transplant! This young mother is going to live a long life with her

own heart. I am overjoyed as I rush over to my patient's room to give her the good news. But she is not there. She is out for a walk with her daughter—and I know even more than before that she is going to be just fine.

**Competing interests:** None declared.

**Keywords:** heart transplant, myocarditis, recovery