

*Le coma dépassé*

I felt a Funeral, in my Brain,  
And Mourners to and fro  
Kept treading – treading – till it seemed  
That Sense was breaking through –

Emily Dickinson, 1861

If we had hinges on our heads  
There wouldn't be no sin,  
'Cause we could take all the bad stuff out  
And leave the good stuff in.

Shel Silverstein, *A Light in the Attic*, 1981

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It was June in the ICU. Smoke from the Canadian wildfires had drifted down and out to the Tri-state area and the sky had an apocalyptic orange hue. Some of the acrid smoke had crept indoors making the unit smell like a sterile campfire. There was a lull in activity after hours of rounding so I perused patient charts on the other half of the unit looking for someone who piqued my interest. Across the unit, was a young gentleman in his twenties with an admission diagnosis reading "Acute influenza infection." I wasn't convinced that the flu alone would warrant an ICU admission, so I opened his chart to imaging. I went to his initial non-contrast head CT carefully avoiding the written report in compliance with an unspoken rule to always look at imaging on my own first.

The scan was immediately abnormal. His brain looked softened, almost mushy appearing in two-dimension with a striking lack of sulci and paucity of cerebrospinal fluid. A junior medical student peered over my shoulder. I explained to the student that the cortex typically appears as a labyrinth of folds discernable on imaging. I clicked over to the radiologist read. The written impression described his obvious cerebral edema as "diffusely catastrophic." I stared at the

words. The radiology impression sounded eerily reminiscent of the title of an article from *The New York Times* I'd read earlier in the week describing the devastating wildfire season in Canada. I suppose the impression was, in simple terms as I told the medical student, "Not good."

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When the neurocritical care physician came to perform a brain death exam two days later, I watched from the outside the doorway, worried that my mere presence in the room would somehow affect the formality of the testing. The exam didn't take long. Even without the apnea testing, the whole event lasted no more than 6 minutes. A different physician came by later in the day to perform the same exam. The results were synonymous. The young gentleman was, as documented, "dead by neurological criteria."

I stayed late that day. There was nothing to do but hope that perhaps he would trigger the ventilator or maybe, just maybe, he would gag. I asked the ICU attending if he would repeat the brain death exam.

"Why?" he said, "there is no point."

"But what if something changed?" I responded.

He smiled gently and then turned back to his computer.

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I thought about what we had learned in medical school about the irreversible cessation of brain function. There was, of course, the release of Harvard Medical School Ad Hoc Committee's article which in 1968 attempted to give meaning to, "patients who are comatose and have no discernable central nervous system activity." This landmark article was, however,

pre-dated by Pierre Mollaret and Maurice Goulon, two French neurophysiologists who characterized a clinical condition entitled, “le coma dépassé,” apparently translating to “the coma exceeds,” (courtesy of Google translate). If describing the irreversible loss of all functions of the brain could ever be considered clement, I’d prefer a diagnosis of *le coma dépassé* to “dead by neurological criteria.”

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The gentleman’s family arrived in the ICU the following day. Apparently, they had flown in from outside of the United States and did not speak much English. For a moment I hoped they spoke French. Maybe they would understand that despite the physicians’ efforts, the ventilator, the hypertonic saline, the steroids, that he was simply existing in a state beyond coma. Maybe the ICU attending wouldn’t have to say the words “brain death” and there would be a linguistic understanding, an ability to grasp the neurological concept of *coma dépassé*.

I left the hospital before terminal extubation that evening. The smoky air had cleared slightly and for the first time that week, the sun peaked through white clouds.

#### References:

1. A Definition of Irreversible Coma: Report of the Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death. *JAMA*. 1968;205(6):337–340.
2. G Matis, O Chrysou, D Silva, T Birblis. *Brain Death: History, Updated Guidelines and Unanswered Questions*. The Internet Journal of Neurosurgery. 2012 Volume 8 Number 1.