

Case Reports

“Walking the Walk”: Decisional Capacity Deficits After Right Hemisphere Subdural Hematoma

Flannery L. Merideth, M.D., Davin K. Quinn, M.D.

Introduction

Executive functions include the cognitive abilities of planning, initiating, sequencing, and monitoring complex, goal-directed behavior.¹ Executive functions play an important role in the capacity to make medical decisions, which entails meeting the well-known 4-prong criteria of consistent choice, factual understanding, appreciation of risks, and rational thought process.^{2,3} However, in patients with right hemisphere lesions that lead to perceptual and behavioral aberrations outside the verbal domain, clinically significant executive dysfunction may be more difficult to detect during a capacity evaluation. We report the case of Mr. Z, who had a right frontoparietal subdural hematoma (SDH; who appeared capable of having the capacity to decide to live at home alone) in which further right hemisphere testing elucidated nonverbal impediments to his decisional capacity.

Case Report

Mr. Z, a 51-year-old man with a history of severe pulmonary hypertension, required a 24-hour continuous infusion of epoprostenol through an arterial central line. He was admitted to the hospital for evaluation of an acute-on-chronic SDH discovered during a workup for worsening headaches and photophobia. An initial computed tomography scan showed a right frontal and parietal SDH with greatest depth of 1 cm and a 0.8-cm midline shift (Figure). Mr. Z had a subdural evacuating port system placed at bedside, and within minutes, he complained of nausea,

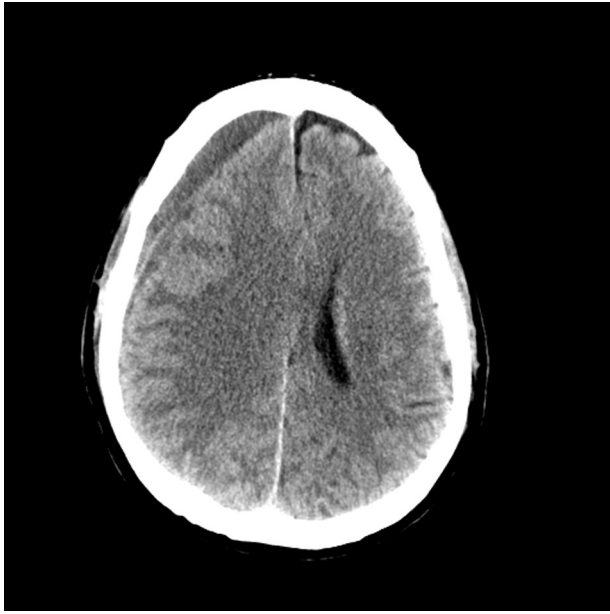
vomiting, and headache followed by a seizure-like event from which he lost consciousness. Repeat computed tomography scan showed an increase in SDH size and more acute hemorrhage with a 1.7-cm right to left midline shift, left-sided obstructive hydrocephalus, and right-sided uncal herniation. Mr. Z underwent immediate right-sided craniotomy and shunt placement. Postoperative imaging showed evacuation of most of the right SDH and resolution of the hydrocephalus and uncal herniation, but a new small SDH over the left frontal lobe was present.

Mr. Z was initially evaluated by the psychiatry team 27 days into his hospital admission regarding his capacity to determine his own discharge plan and ability to operate his epoprostenol pump. He had word-finding difficulties and impulsive behavior, and at that time, it was determined that Mr. Z did not have capacity to make his own medical decisions. Neuropsychologic evaluation evinced global cognitive deficits with particular impairment in executive functioning, as tested by several subtests of the Repeatable Battery for the Assessment of Neuropsychological Status and the Trail Making Test parts A and B. His poor executive functioning was attributed to the bilateral frontal lobe involvement of his intracranial bleed. Furthermore, he failed to demonstrate appropriate operation of his medication pump

Received May 8, 2015; revised June 26, 2015; accepted July 6, 2015. From the Department of Psychiatry, Massachusetts General Hospital, Boston, MA (FLM); Department of Psychiatry, University of New Mexico, Albuquerque, New Mexico (DKQ). Send correspondence and reprint requests to Davin K. Quinn, M.D., Department of Psychiatry, University of New Mexico, 2600 Marble Avenue NE Albuquerque, New Mexico 87131; e-mail: dquinn@salud.unm.edu

© 2016 The Academy of Psychosomatic Medicine. Published by Elsevier Inc. All rights reserved.

FIGURE. Computed Tomography Scan of the Head of Mr. Z Demonstrating Right Frontoparietal Subdural Hematoma. Laterality is Reversed on Image.



when examined by an infusion specialist nurse. It was recommended that his sister become his surrogate medical decision-maker and that he receive 24-hour care with discharge to a nursing or rehabilitation facility when appropriate.

The consultation service was asked to reevaluate Mr. Z 15 days later for decisional capacity to refuse placement and to go home. In the interim, there was documentation of improved mentation, presumably from resorption of the SDHs. Mr. Z had seemed to regain his ability to manage his epoprostenol pump as he was accurately correcting the nursing staff on how to operate it. Because of the expense of his medication pump and the liability inherent in its use (death if not infusing medicine continually), Mr. Z's medical team had been unable to secure discharge for him to a nursing or rehabilitation facility. He desired to go home and manage his medication pump by himself, leaving against medical advice. The infusion specialist nurse reevaluated Mr. Z's understanding of the pump and thought that he was safe to operate it himself.

At the time of reconsult, Mr. Z was taking duloxetine at a dose of 20 mg daily (prescribed for chronic leg pain), bosentan at a dose of 125 mg b.i.d. (for pulmonary hypertension), gabapentin at a dose of 600 mg at bedtime (for chronic leg pain), levetiracetam

at a dose of 1000 mg b.i.d. (for seizures), pantoprazole at a dose of 20 mg daily (for gastroesophageal reflux disease), sildenafil at a dose of 20 mg t.i.d. (for pulmonary hypertension), and spironolactone at a dose of 25 mg b.i.d. (for pulmonary hypertension). He was allergic to nitrates, and his psychiatric history was significant only for remote methamphetamine use. On examination, Mr. Z's body temperature was 36.7°C, heart rate was 76 beats per minute, respiratory rate was 16 breaths per minute, and blood pressure was 104/59 mm Hg. His laboratory results including a chemistry panel, thyroid-stimulating hormone, and complete blood count were normal, except for a mild thrombocytopenia of 143,000. Results of HIV and hepatitis antibody tests were negative. The finding on elemental neurologic examination was normal and without signs of overt hemi-field neglect.

Mr. Z demonstrated very good knowledge of his medical condition and his treatment options. He was able to accurately describe when he was transitioned to the epoprostenol pump and why. He recited the side effects of the medication in the order in which they appeared in his drug information sheet. He understood that his pulmonary symptoms could worsen if the pump were to stop and that it could be fatal. He discussed the alternatives in a rational way (oral medicines had failed and no treatment would be fatal).

He discussed how he mixes his medication and showed off his central line and the elements of the infusion system. To demonstrate the importance of his pump to the nursing staff, he leaned close to the interviewer and whispered, "Watch this." He reached over and began to turn a dial on the pump, changing the infusion pressure. An alarm began to sound and Mr. Z's nurse came running into the room, obviously concerned. "It's okay," he told her, and adjusted the pressure back to normal. "See?" he said to the interviewer, "They come running if anything is wrong!"

Despite his reassuring responses to questions about his pump, Mr. Z was unexpectedly jocular and impulsive during the interview, at times getting out of bed and causing undue tension on his arterial line. He had poor insight, stating his thinking was "clearer than it has ever been," despite difficulties calculating serial 7s or drawing a clock. He scored 20 of 30 on the Montreal Cognitive Assessment (mild cognitive impairment) with additional errors in visuospatial executive functions, short-term memory, and language. Mr. Z additionally demonstrated anosognosia and anosodiaphoria, i.e., denial of

Download English Version:

<https://daneshyari.com/en/article/337405>

Download Persian Version:

<https://daneshyari.com/article/337405>

[Daneshyari.com](https://daneshyari.com)