“Where are we?”

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Scenario

- You are asked to consult with the orthopedic surgery service on a 82 year old female patient that is 3 days post op. The reason for the consult is that the surgery service has noted that the patient is confused with the nursing staff having difficulty with management due to the patients frequent requests to leave the hospital.
HPI

• The patient is an 82 year old married female patient who was admitted to the hospital 4 days ago for total hip replacement due to severe osteoarthritis. Prior to surgery the patient was noted to be well adjusted, cooperative and cognitively intact. She tolerated the procedure without difficulty and a good surgical result was achieved.
HPI

- The post op course was uneventful until the 2nd post op day when the patient was noted by family who visited as being confused however she remained oriented when asked by staff. The following day the patient was noted to be disoriented, confused and attempting to ambulate unassisted. She was hostile when redirection was attempted. Sleep was significantly disturbed and appetite was erratic.
Medical History

- The patient is noted to have a history of hypertension and mild COPD. Her medical history is otherwise unremarkable and psychiatric history is unremarkable as well. She is prescribed beta agonist inhalers prn and takes Lisinopril for hypertension. She has had no recent medication or dosage changes although she was started on antibiotics post op for infection prophylaxis.
Family History

• Family history is positive for CVA in her mother and cardiac artery disease with MI in her father. She also has a family history of CVA in other family members. There is a history of depression as well as ETOH dependance in a brother and nephew.
Social History

• The patient was born in Philadelphia, Pennsylvania and attended school there through high school. She later attended business school briefly before leaving to get married. She worked as a secretary at a church for many years. She and her husband had 2 children both of whom live close by and are supportive of her and her husband.
Substance Abuse History

• The patient does drink wine on occasion with meals but has no history of alcohol abuse or dependance. She has no history of illicit drug use or history of misuse of prescription medications.
Review of Systems

• Recent symptom history is difficult to elicit from the patient however staff report that she did develop a mild cough post op with follow up chest x-ray negative for pneumonia. She has responded to routine pulmonary toilet.

• She has not been noted to voice other complaints other than some pain when she attempts to ambulate.
Physical Exam

- Vitals: BP 148/83, P 82, R 24, T 98.4
- Head normocephalic and atraumatic
- Ears and throat unremarkable
- PERRLA, EOMI
- Heart regular rhythm
- Lungs with minimal wheeze in right base otherwise clear to auscultation.
- Abdomen soft non-tender
- Neuro non-focal, CN intact, no pathological reflexes elicited
Mental Status Exam

• The patient is pleasant and generally cooperative when you arrive at the bedside but is noted to be somewhat somnolent as the interview progresses.
• Mood is somewhat somber and affect is blunted and mildly irritable.
• Thought process is generally logical and content shows no evidence of delusional or psychotic thinking. The patient denies suicidal or homicidal ideas.
Mental Status exam

• The patient admits to visual illusions reporting that she often sees items in her hand and animals “stuck” to her bedspread.
• The patient is not fully alert and oriented to name only. She is unable to identify where she is or why she is there.
• Recall is faulty (0/3 at 5 minutes)
• Concentration and attention span is poor.
• Insight into her deficits is poor
• Judgment is influenced by disorientation
Folstein Mini Mental State Exam

- Total Score 22/30
  - Orientation 2/5 for place and 3/5 for date
  - Recall is 0/3 at 5 min.
  - All other sections are essentially normal.
Labs

• CBC within normal limits
• Basic chemistries reveal a slight hypokalemia with K+ 2.9 otherwise unremarkable.
Which other study might be the most useful in the diagnosis of this patient?

a. Serum Protein electrophoresis  
b. Apo E lipoprotein electrophoresis  
c. Urinalysis  
d. B12 then follow up MMA level.
Sorry, this is an incorrect answer
Correct!

The patient in this case has shown evidence of acute mental status changes. One common cause of mental status changes in the elderly, particularly females, is urinary tract infections. The urinalysis is therefore indicated in the workup to rule out urinary tract infection which may cause mental status change.
Other Data

- Chest X-ray was negative
- CT of head with evidence of age appropriate atrophy and mild microvascular disease otherwise unremarkable.
- Closer VS monitoring revealed continued stable vital signs.
Which would **not** be appropriately included in the differential diagnosis?

a. Schizophrenia, disorganized type
b. Dementia,
c. Delirium
d. Metabolic encephalopathy
Sorry, this is an incorrect answer
The patient in this case clearly shows evidence of cognitive dysfunction. Although it appears that the onset of dysfunction occurred more rapidly than would be expected with a diagnosis of dementia, it remains appropriate in the differential diagnosis. The diagnosis of chronic Schizophrenia does not generally present with cognitive dysfunction and therefore should not be included in the differential diagnosis for this patient.
Treatment

• Patient was monitored carefully.
• Nursing staff was reminded to give the patient frequent cues for orientation.
• All medications were reviewed and unnecessary medications discontinued.
• Family was encouraged to visit frequently for support to patient.
Which of the following would be another useful treatment adjunct?

a. Providing more stimulation to the patient.

b. Moving the patients room to give her a change of scenery.

c. Keeping window blinds open during the day and dim lighting at night.

d. Benzodiazepines to calm the patient.
Sorry, this is an incorrect answer
Correct!

Supportive treatments that tend to improve confusion and disorientation in delirious patients include frequent orientation, stable environment and avoidance of drugs such as benzodiazepines that can increase confusion. Frequent changes in environment, limited environmental clueing (ex. No windows) and overstimulation can sometimes worsen the condition.
If the patients symptoms continue, which of the following might be useful?

a. Clonazepam 1mg. bid
b. Amitriptyline 75mg. qhs
c. Paroxetine 20mg qam.
d. Haloperidol 0.5 mg. qd.
Sorry, this is an incorrect answer
Correct!

Haloperidol is the best studied antipsychotic drug used in the treatment of delirium. All other choices are drugs which have anticholinergic or sedative properties, classes of drugs that are known to potentially cause exacerbation of delirium.
Conclusions

- Family was able to stay with the patient frequently and provide supportive measures and frequent reorientation.
- With supportive measures and brief pharmacological intervention, the patient's symptoms resolved within 1 week. Her cognitive functioning returned to premorbid levels. The patient was subsequently discharged to rehab in stable condition.