“Agitation”

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Scenario

You are called to consult on an 84 year old female nursing home patient by her primary care physician. The patient has been a resident in the nursing home for 3 weeks over which time she has been progressively more agitated and is now disoriented and threatening toward her roommate.
HPI

- This elderly white female patient was placed in the Happy Dale Nursing Home approximately 3 weeks ago from her previous residence in her own home. She had been supported by her family for about 2 years in independent living however had become increasingly physically and cognitively infirm and required placement in a nursing home in order to meet her physical and safety needs.
HPI

• Upon arriving at the home the patient was generally oriented to her surroundings and settled in quickly finding many things in common with her roommate. She was noted to be frequently incontinent of urine; however, after being prescribed oxybutinin the incontinence seemed to resolve. She continued to do well until the following week when she began to complain of insomnia. Again however after receiving a low dose of diphenhydramine for sleep she did much better.
By the third week of her residence, the patient was noted by staff to be disoriented at times and more irritable, often questioning her medication orders and becoming very irritable and threatening toward her roommate at times.

Vital signs were stable and brief physical exam was unremarkable.

Her primary care Dr. ordered CBC, Blood chemistries, and UA all of which were normal.

She was prescribed lorazepam x 1 for agitation which seemed to make her agitation worse.
Benzodiazepines can make preexisting symptoms of agitation worse.

a. True
b. False
Sorry, this is an incorrect answer
Benzodiazepines are well known to have disinhibiting effects particularly in cognitively impaired populations. This phenomenon has also been referred to as a paradoxical effect can increase agitation and or aggression in some patients.
Medical History

- HTN which had been well controlled.
- Osteoarthritis
- Mild aortic insufficiency
- No history of psychiatric illness or treatment is elicited other than a diagnosis of mild dementia approximately 2 years prior to her admission to the nursing home.
Family History

• History of Dementia, late onset, in the patient’s mother.
• Her father died of “heart attack” at age 67.
• She had one brother with prostate cancer.
• No family history of psychiatric illnesses.
Social History

• The patient was born and raised in Pittsburg, PA. She was raised in an intact family and has no history of abuse or neglect.
• She attended school through high school.
• She was married 53 years prior to being widowed 5 years ago.
• She has 3 adult children who are supportive and interested parties to her treatment.
Substance Use History

• The patient had been a social drinker for most of her life until her husband died. She has not drank alcohol since that time. She has no known history of ETOH abuse or dependence.

• She has no known history of illicit drug use of abuse of prescription drugs.
Review of Systems

• The patient denies recent pain
• When prompted she does tell you about her recent bout of incontinence and indicates that she is glad that the medication is helping.
• She denies HA, dizziness, visual or speech changes, paresthesias or loss of control of limbs, trunk, etc.
Physical Exam

• Vital signs are stable
• Eyes PERRLA with moderate mydriasis.
• HRRR with III/IV systolic ejection murmur
• Lungs CTA
• Neurological exam is non-focal with cranial nerves intact.
Mental Status Exam

- The patient is somewhat disheveled in appearance (this has deteriorated per staff)
- Speech is articulate and behavior is appropriate with the exception of slight increased psychomotor activity level.
- Mood is mildly anxious, irritable and affect is tense and anxious but stable.
- Thought process is logical and content shows no evidence of delusional thinking. She denies suicidal or homicidal ideation.
- Perception appears to be normal
- Memory for recent events is somewhat faulty and the patient has difficulty in attention and concentration.
- She lacks insight into her current circumstances and her judgement is influenced as a result
Which other test would be the most helpful?

a. Shillings test
b. Stanford-Binet intelligence exam
c. Thematic aperception test
d. Folstein mini mental state exam
Sorry, this is an incorrect answer
Correct!

The Folstein Mini Mental State Exam is a useful and well validated screen of cognitive function provided it is interpreted within the context of the mental status exam and the general physical exam. This patient shows symptoms of cognitive disruption therefore the Folstein MMSE would be a useful adjunct to your exam.
You find a record of a Folstein Mini Mental State exam that was administered as a part of the cognitive screening requirements for nursing home placement. Which of the following is a true statement?

a. It would be of little use since it is 6 months old
b. Temporal comparison of the two tests would be useful in the differential diagnosis.
c. We would expect the score to go down as a result of nursing home placement
d. Since the test was given by two different providers, comparison of the scores would be difficult
Sorry, this is an incorrect answer
Correct!

The Folstein Mini Mental State Exam is well validated with excellent reliability. This means that little or no error should be introduced by the setting that the test is administered in or the clinician administering the test. One of the most valuable uses of the test is for temporal comparisons (comparison of scores over time). In this case the data provided by this comparison may clarify the onset and progression of symptoms which may guide the differential diagnosis.
Which of the following is the most likely cause of abrupt mental status change in an elderly patient?

a. Latent psychotic disorder.
b. Bipolar disorder, late onset
c. Medication side effects
d. Dementia
Sorry, this is an incorrect answer
Correct!

One of the most common causes of abrupt mental status changes including agitation in the elderly is iatrogenic – medication side effects. None of the other choices in this question are associated with abrupt mental status changes. Bipolar disorder and new onset primary psychotic disorders are extremely rare in the elderly patient.
Of the medications that this patient is prescribed, which are the most commonly associated with agitation and acute mental status changes in the elderly?

a. Metoprolol for Hypertension
b. Oxybutinin and diphenhydramine
c. Multivitamins for nutritional supplementation
d. Ibuprofen for pain/stiffness
Sorry, this is an incorrect answer
Correct!

Although almost any medication can be associated with mental status changes in any individual, there are common offenders. Among the most common medications associated with mental status changes in elderly patients are anticholinergic and sedative medications. In this case the patient has recently been prescribed two anticholinergic medications, oxybutinin and diphenhydramine. Multiple anticholinergic drugs further increase the risk of mental status changes in the geriatric patient.
Recommendations/Results

• You, as the consulting psychiatrist recommend that the primary care physician stop oxybutinin and diphenhydramine.

• Over the next several days the patients agitation and anxiousness resolves and orientation improves significantly.

• She is no longer agitated and once again friendly toward her roommate and staff.
If her incontinence and insomnia return, you might recommend.

a. Rechallenge with the same medications.

b. Try a different medication in the same class

c. Use adult diapers and encourage earlier bedtime

d. Try behavioral techniques and sleep hygiene.
Sorry, this is an incorrect answer
Correct!

Many cognitively impaired elderly patients exhibit temporary changes in sleep patterns as well as functional incontinence when confronted with stress and environmental changes. These symptoms although often distressing to the patient are usually time limited and fairly easily controlled with behavioral interventions such as toileting schedules and structured bed and wake times. Using anticholinergic medications in a patient with history of associated mental status changes is likely to bring about the same symptoms and ignoring the symptoms and using adult diapers may encourage regression or more distress in the patient.
Conclusions

• The patient has only rare episodes of incontinence which improve significantly as she adjusts to the change in living environment.
• The patients sleep patterns also seem to normalize as she adjusts.
• She becomes an active participant in the nursing home milieu and admits to family that she enjoys the socialization provided by the nursing home setting.