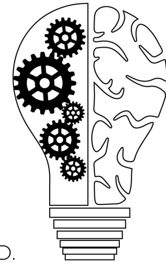
Episode 031: Psychiatric Approach to Delirium

David Puder, M.D.



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There are no conflicts of interest for this episode.

This week on the podcast, I am joined by Dr. Timothy Lee, the Loma Linda residency program director and the head of medical consult and liaison services. One of his specialities is delirium, so this week we will be discussing both hypoactive and hyperactive delirium.

What is Delirium?

Delirium is an acute change in a person's sensorium (the perception of one's environment or understanding of one's situation). It can include confusion about their orientation, cognition or mental thinking.

With **hyperactive delirium**, a patient can become aggressive, violent and agitated with those around them. A patient experiencing delirium can have hallucinations and hear things, they can become paranoid, and they are overall confused. A family, or non-psychiatric medical staff, might be concerned that the patient is experiencing something like schizophrenia.

Hyperactive delirium symptoms in patients:

- Waxing and waning—it comes and goes
- Issues with concentration
- Pulling out medical lines
- Yelling profanities
- Throwing things
- Agitated
- Responding to things in the room that aren't there
- Not acting like themselves

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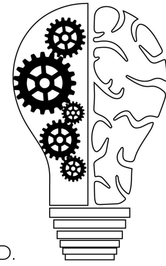

Hypoactive delirium is often missed because the presentation is much less dramatic compared to hyperactive delirium. People with hypoactive delirium are confused and disoriented, but they are not pulling out their lines, yelling, or physically restless.

Hypoactive delirium symptoms:

- Slower movement
- Softer speech
- Slower responses
- Withdrawn
- Not eating as much

Often, nurses and physicians can miss the fact that the patient has the typical confusion that denotes delirium because the patient is quieter, so it doesn't come to the attention of the medical team or psychiatrist consult service.

Delirium can even be confused for depression. One study showed that when consulting a doctor about their depression, 41.8% of the time, the patient ended up having delirium. These delirious patients reported thoughts of death, low mood and worthlessness (Farrell, 1995).

Why Does Delirium Happen?

Often we see it happen, even to relatively healthy people, in physically stressful situations—post surgery, during an acute illness, or even just being stuck in the hospital for a few days. This does not mean it is indicative of a sudden onset of a long term mental illness, such as schizophrenia.

To consider what can cause delirium, I like to think systematically from the top of the body and work my way down. This is by no means exhaustive, but it can be helpful.

Many things can cause delirium. I like to think about starting at the top of the body and going down, as a way to not miss the cause. Here are a few we would consider as we go down the body:

- Stroke—check strength in both arms and legs, have the patient smile

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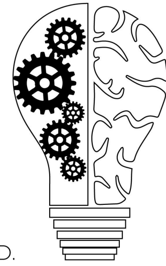

- Hypertensive emergency
- Infection or meningitis
- Physical trauma—concussion, head injury with initial loss of consciousness, then after regaining consciousness they can have delirium
- Brain bleeding
- Medications that affect the brain, such as ones that produce anticholinergic side effects. (They suppress acetylcholine, causing brain imbalances and confusion. Anti-allergy medicines, pain medications, and some psychiatric medications are anticholinergic.)
- Circulatory issues
- Thyroid imbalances or parathyroid hormones
- Cancer
- Heart attack
- Traumatic injury to the heart
- Aspiration pneumonia
- Lung infection
- Lung cancer
- Viral pneumonia
- Pancreatic inflammation
- Urinary tract infections in women
- Liver cirrhosis
- Hepatitis
- Gallbladder inflammation
- Low bilirubin
- Hepatic encephalopathy

How Do We Identify Delirium in a Patient?

Asking certain questions to the patient and/or medical team and family can help us understand if the patient is experiencing delirium. Often, a patient experiencing delirium will still know where they are, what they are doing, and who they are. The main test to really determine if it's delirium is the "clock drawing" where we ask the patient to draw a clock with the hands showing 11:10.

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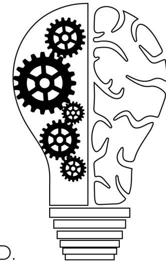

Here are some questions and tasks we ask the patient to answer and perform to test for delirium:

- Does the person know who they are?
- Does the person know where they are?
- In what detail does the person *understand* where they are?
- Does the person know the date?
- Can they orient to the situation? Do they know why they are there and the circumstances that led to them being in the hospital?
- We might ask the patient to repeat back a few words for us.
- We will ask them later if they remember the three words we asked previously.
- We test for concentration, like asking the days of the week in reverse order.
- We try to assess their visual and spatial ability.
- We might ask them to draw a clock to look for spacing, impairments, or difficulties.

Some tests that are common to determine delirium are:

- The Mini Mental Status Exam (MMSE)
- The Montreal Cognitive Assessment

How to Help

It is important, if the patient has loved ones with them, to educate the family about delirium, because both hypoactive and hyperactive delirium can be terrifying to watch.

When it comes to giving medications, it's important to follow a few rules. Giving medications with anticholinergic side effects can make the patient more agitated. When prescribing meds, be careful not to switch from a hyperactive delirium presentation to a hypoactive delirium presentation by just sedating the patient but maintaining confusion. Medications like benzodiazepine, barbiturates, sedatives and pain medications (beyond what is needed for pain) can all cause worsening of delirium.

If the confusion is from an infection, an antibiotic should eventually help the cause of the delirium, however it may take a few days for the confusion to improve after the cause is

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eliminated. At times antipsychotic medications are used to help the delirium and reduce the time needed to stay in the hospital.

Even after the cause of the delirium is gone, and the delirium seems to have improved very quickly, a person may still have lingering cognitive issues. It's important to be conservative in terms of how quickly you taper them off of the antipsychotic medication used to treat the delirium.

Next Steps:

Good Article on Hypoactive Delirium:

Hosker, C., & Ward, D. (2017). Hypoactive delirium. *Bmj*, *357*, j2047.

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