Delirium Update

EDUARDO A. COLÓN, M.D.
HENNEPIN COUNTY MEDICAL CENTER
Diagnosis

- Attention and Awareness

- Acute or subacute onset

- There is also another disturbance in cognition, such as in memory, orientation, language, and perception.

- A and C do not occur in context of severely reduced level of arousal

- There must also be evidence that the delirium is due to a direct physiological consequence of another medical condition, substance intoxication or withdrawal, or exposure to a toxin, or is due to multiple etiologies.
Diagnosis

Modifiers:

(1) substance intoxication delirium
(2) substance withdrawal delirium
(3) medication-induced delirium
(4) delirium due to another medical condition
(5) delirium due to multiple etiologies
(6) acute
(7) persistent

DSM-5
Subtypes

- Hyperactive
- Hypoactive
  - most common in the ICU (43%)
- Mixed
  - most common in the general units (46%)

Meagher et al. 1996
Neuropathogenesis

- excess release of norepinephrine, dopamine or glutamate
- increased calcium and calcium channel activity
- reduced acetylcholine and melatonin
- increased or decreased serotonin, histamine, GABA

Maldonado J. Delirium in Handbook of Consultation Psychiatry, 2015
Delirium Risk

- Elderly
- Critically ill
- TBI
- Polypharmacy
- Conditions with accompanying anemia, hypoxia, poor brain perfusion
- Disruption of blood brain barrier
Management

- Awareness of risk
- Prevention
- Recognition
- Treatment

Maldonado, J 2015
• Awake
• Breathing
• Coordination
• Delirium monitoring
• Early mobilization

Prevention

- Avoid agents with high potential of inducing or facilitating delirium (anticholinergic, benzodiazepines, sedatives)
- Consider sedation with dexmedetomidine or propofol
- Early mobilization
- Opioids to lowest dose to target analgesia
  - hydromorphone, use fentanyl for rapid initiation or rescue
- Daily sedation interruption

Maldonado J, 2015
Treatment

- Identify etiology
- Review medications
- Mobilization, early PT and OT
- Sensory aids
- Avoid benzodiazepines, except sedative, barbiturates
- Pain management
- Daily awakening in intubated patients
Treatment - pharmacotherapy

- Recent literature examines potential role of dopamine antagonists pre and immediately postoperatively.
- Extensive data and support of use of iv haloperidol in delirium.
- Cochrane study compared low dose haloperidol and risperidone, olanzapine, found no difference (Lonergan et al 2007).
- Risperidone (.5 to 4 mg per day)- 80-85%, olanzapine (2.5-11.6 mg per day)- 70-76%

Treatment—
pharmacotherapy

Other agents
- Valproic Acid
- Gabapentin
- Amantadine
- Physostigmine
- Melatonin
Delirium Consequences

- PTSD
- Depression
- Cognitive impairment