Acute Confusional States

Yousef Mohammad MD., MSc., FAHA
Associate Professor of Neurology
King Saud University

Acute Confusional State

Terminology

- Acute Confusional State
- Delerium
- Encephalopathy
- Toxic Psychosis

Acute Confusional State

- Poor prognostic sign
- 3 – month mortality rate of patients with an episode of delirium: 23 – 33%
- 1 – year mortality rate up to 50%
- Elderly patients with delirium while hospitalized have 20 – 75% mortality rate during that hospitalization

Acute Confusional State

- Acute Confusional State is an emergency
- Patients must be urgently evaluated for the cause which will dictate the appropriate management

Acute Confusional State

Diagnostic Criteria

- A disturbance in attention (reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to environment)

- The disturbance develops over a short period of time (usually hours to a few days), represents a change from baseline attention and awareness, and tends to fluctuate in severity during the course of a day

Acute Confusional State

Signs and symptoms

- Disturbance in attention, orientation and memory
- Acute/subacute onset, fluctuating severity of symptoms
- Usually reversible
- Delusion, illusions and hallucination
- Sleep-wake Disturbance

Acute Confusional State

Signs and symptoms

- Hyperactive
- Hypoactive
- Word-finding difficulty
- Altered or Labile Affect

Differential of Delirium

	Delirium	Dementia	Depression	Schizophrenia
Onset	Acute	Insidious	Variable	Variable
Course	Fluctuating	Progressive	Diurnal Variation	Variable / Chronic
Reversibility	Usually	Not Usually	Usually	Not
Level of Consciousness	Impaired	Clear until late stages	Generally Unimpaired	Unimpaired
Attention / Memory	Inattention, poor memory	Poor memory	Decreased Attention	Decreased Attention
Hallucinations	Usually VH, Can TH, AH	Can have VH or AH	Can have AH	Usually AH
Delusions	Fleeting, Fragmented, Persecutory	Paranoid, often fixed	Complex, mood congruent	Frequent, Complex, Systematized

Delirium Epidemiology

- Can occur at any age
- Prevalence 5 - 44% in hospitalized patients
- 10 – 15% of elderly persons are delirious when admitted to a hospital
  - Another 10 – 40% are diagnosed with delirium during hospitalization
- 30% of ICU patients

Acute Confusional State

Etiologies of Delirium

- Drug Intoxication
  - Alcohol
  - Sedative-hypnotic
  - Opiate
  - Psychostimulant
  - Hallucinogenic/Inhalants
  - Industrial poisons
  - OTC or prescribed: tricyclic anti-depressant, anti-histamine, H2 receptor blocker, anti-cholinergics, trihexphenidyl, steroids

Etiologies of Delirium

Metabolic/Endocrine Disturbance

- Volume depletion/overload
- Acidosis/alkalosis
- Hypoxia
- Uremia
- Anemia
- Low B1, B6, B12, Folate
- Hypo/hyperglycemia
- Hypo/hypercalemia
- Hypo/hypernatremia
- Hypo/hyperthyroidism
- Cushing's syndrome
- Addison's disease
- Hypopituitarism
- Porphyria

Etiologies of Delirium

- Neoplastic disease
  - Intracranial primary, metastasis
  - Paraneoplastic (PLE)
- Intracranial Infection
  - Meningitis
  - Encephalitis
  - Neurosyphilis
  - HIV
- Systemic Infection
  - Sepsis
- Organ Insufficiency
  - Cardiac/pulmonary/hepatic/renal/ pancreatic

Etiologies of Delirium

- Other systemic
  - Heat stroke
  - Hypothermia
  - Burn

- Cerebrovascular
  - Subarachnoid/dural hemorrhage
  - stroke
  - Subdural hematoma
  - Cerebral edema
  - Hypertensive encephalopathy
  - Cerebral vasculitis
- Other CNS
  - Seizures (none convulsive seizures)
  - Huntington's disease
  - Hydrocephalis
  - Lupus cerebritis

Course of Delirium

- Symptoms last as long as underlying cause is present
- After removal or treatment of causative factor, symptoms of delirium usually recede over 3 – 7 days
- Older the patient and the longer delirious, the longer the delirium takes to resolve

Treatment

- Treat underlying cause
- Restraints may be needed to avoid self harm, but try to avoid
- Use orienting techniques
  - Calendar, frequent reminders
  - Natural day/night lighting, nightlights
  - Family

Treatment

- Haloperidol (Haldol)
  - Neuroleptic most often chosen for delirium
  - p.o., I.M., or I.V.
    - I.V. route not FDA approved and with warning regarding QTc prolongation
    - I.V. and I.M. route twice as potent as p.o.
  - Reduces agitation, aids in cognition and psychotic symptoms
  - Watch for possible QTc prolongation
  - Check EKG
  - Underlying cause must still be addressed

Treatment

- Risperdal
- Seroquel
- Geodon