Chapter 11 – Changes in Behavior

Section 3

I. Dementia

Common Brain-related Syndromes

- Dementia of the Alzheimer's Type (DAT)
- Dementia with Lewy Bodies (DLB)
- Frontotemporal lobar dementia (FTLD)
- Vascular Dementia (VaD)
- Mixed dementias
- Parkinson's disease
- Traumatic brain injury

Common General Medical Causes

- Hypothyroidism
- B₁₂ deficiency
- Thiamine deficiency (Korsakoff’s syndrome)
- Sleep apnea

Less Common Brain-related Syndromes

- Huntington's disease
- AIDS-dementia complex
- Neurosyphilis
- Chronic meningitis
- Creutzfeldt-Jakob disease
- Normal pressure hydrocephalus
- Other hydrocephalus
- Space-occupying lesion

Less Common General Medical Causes

- Hyperthyroidism
- Addison’s disease
- Cushing’s disease
- Panhypopituitarism
- Hyperparathyroidism
II. Confusion/Delirium

More Common Brain-related Causes

- Folate deficiency
- Vitamin A, D toxicity

- Sleep deprivation
- Exacerbation of dementia by intercurrent illness ("Beclouded" dementia)
- Migraine
- Stroke, especially brainstem, thalamic, right parietal, or bi-occipital
- Traumatic brain injury with or without loss of consciousness
- Subdural hematoma
- Increased intracranial pressure (IICP, e.g. tumor, hydrocephalus)
- Herpetic encephalitis
- Cysticercosis
- Thiamine deficiency causing Wernicke's encephalopathy, Korsakoff's syndrome
- Syndrome of inappropriate ADH excretion (SIADH)
- Postictal state
- Depression with psychomotor retardation
- Schizophrenia

More Common General Medical Causes

- Drug toxicity or withdrawal (see Table 11.1-5)
- Fever
- Low output cardiac failure
- Pulmonary hypertension
- Hypertensive encephalopathy
- Hypo- or hyperglycemia
- Hyponatremia
- Hypothyroidism
- Anemia (hematocrit < 24)
- Hepatic encephalopathy
- Uremic encephalopathy
- Anoxia/hypoxia/pulmonary disease
- Serotonin syndrome
- Post-operative confusion

Less Common Brain-related Causes

- Epidural hematoma
• Nonherpetic viral encephalitis
• Bacterial or fungal meningitis
• Carcinomatous meningitis
• Limbic encephalitis
• Carotid or vertebrobasilar insufficiency without stroke
• Creutzfeldt-Jakob disease
• Neurosyphilis
• Complex partial or petit-mal status epilepticus
• Multiple sclerosis
• Neuroleptic malignant syndrome
• Mania

Less Common General Medical Causes

• Porphyria
• Addison’s disease
• Cushing’s disease
• Systemic lupus erythematosus
• Temporal arteritis
• Hyperthyroidism
• Hyperparathyroidism
• Hypercalcemia
• Panhypopituitarism
• Carcinoid syndrome
• Post–CABG delirium
• Carbon monoxide poisoning
• Heavy metal toxicity
• Acetylcholinesterase inhibitor toxicity (e.g., insecticide)

References


Self-Assessment Questions

1. Which of the following items in the past medical history is of special concern when assessing a recent change in behavior in an older adult?
   A. Adolescent mental health interventions
   B. Recent ETOH dependence
   C. Current lung tumor
   D. A and B only
   F. A, B, and C

2. Which of the following is true in regard to changes in mental status?
   A. Dementia requires altered level of attention and arousal
   B. A history of rapid decline helps to rule out a chronic process
   C. Delirium has a mortality rate of 15–65 percent
   D. The rate of change often guides the urgency of assessment
   E. C and D only
   F. All of the above

3. Poor sleep or insomnia is common in:
   A. Sleep apnea
   B. Mood disorders
   C. Hydrocephalus
   D. Hypoglycemia
   E. A and B only
   F. A, B, and D

4. Unilateral weakness can occur in:
   A. Stroke
   B. CNS tumor
   C. Hypoglycemia
   D. A and B only
   E. A, B, and C

5. New onset confusional syndromes can be attributed to drugs in approximately:
   A. 10–15 percent of cases
   B. 15–30 percent of cases
   C. 35–60 percent of cases
   D. 60–75 percent of cases
   E. 75–90 percent of cases

6. Drugs commonly reported to cause altered mental status include:
   A. acetaminophen (Tylenol®)
   B. disopyramide phosphate (Norpace®)
   C. baclofen (Lioresal®)
   D. sulfamethoxazole
   E. C and D only
   F. B, C, and D
7. Which of the following is true about the mental status exam?
   A. The Folstein MMSE score in Alzheimer’s disease falls between 0 and 21.
   B. Asking the patient to name the stem of a watch or the lapel of a jacket is usually a good test of dominant hemisphere function.
   C. An acute confusional state is often very similar to a Broca’s aphasia
   D. Repeating three words is a test of working memory
   E. D only
   F. A, C, and D only

8. The following statements about neurodegenerative conditions are true:
   A. Stepwise progression is expected in vascular dementia.
   B. Definitive biological markers have been identified which distinguish Alzheimer’s disease from normal aging.
   C. The Hachinski Ischemia Scale can be used to diagnose vascular dementia.
   D. A and C only
   E. none of the above

9. The diagnostic workup for dementia must include:
   A. Neuropsychological testing
   B. Neurological examination
   C. MRI scan
   D. Thyroid function tests
   E. B and D only
   F. B, C, and D only

10. If you introduce yourself to the patient in a loud voice and see no response, this could be explained by:
    A. Deafness
    B. Language barrier
    C. Paralysis
    D. Encephalopathy
    E. A, C, and D only
    F. All of the above

11. Abnormal gait can help to diagnose a change in mental status, since it is common in:
    A. Dementia with Lewy Bodies
    B. Increased intracranial pressure
    C. Parkinson’s disease
    D. Alzheimer’s disease
    E. B and C only
    F. A, B, and C only
12. In regard to Alzheimer’s disease:
   A. About 15 percent of adults are affected by age 70
   B. Onset is often rapid
   C. About 35 percent of adults are affected by age 85
   D. Time from diagnosis to death averages four years
   E. A and C only
   F. A, C, and D

**Answers**

1. E
2. E
3. E
4. E
5. C
6. F
7. E
8. E
9. E
10. E
11. F
12. C