Delirium

Synonyms: Acute confusional state, acute brain syndrome, acute organic reaction.

Introduction

Neuropsychiatric syndrome involving acute or subacute fluctuating abnormalities of thought, perception and levels of awareness.

Epidemiology

There is an increase in delirium with age: <1% if <55, >10% in elderly.
Occurs in 15-20 % of all general admissions to hospital. Probably underdiagnosed.

Risk factors for delirium

- Extremes of age.
- Male sex
- Pre-existing cognitive deficit e.g. dementia, stroke
- Severity of dementia
- Severe co-morbidity
- Previous episode of delirium
- Post-op.
- Certain conditions - burns, AIDS, fractures, infection, dehydration
- Drug use and dependence e.g. BDZ
- Substance misuse e.g. alcohol
- Extremes of sensory experience e.g. hypothermia or hyperthermia
- Visual or hearing problems
- Poor mobility
- Social isolation
- Stress
- Terminally ill
- Movement to a new environment
- ICU admission
- High serum urea

Causes of delirium

- Acute infections: UTI, LRTI, CNS
- Medications: BDZ, anticholinergics, steroids, anticonvulsants, anti-Parkinson
- Toxic substances: EtOH, drug abuse, drug withdrawal, CO, heavy metals
- Vascular disorders: CVA, SDH, SAH, SLE, migraines
- Metabolic causes: Hypoxia, electrolyte anomalies, ↑or↓BSL, renal impairment, CCF/IHD
- Vitamin deficiencies: Thiamine (B_1), nicotinic acid (B_3), vitamin B_{12}
- Endocrinopathies: Thyroid & parathyroid disorders, Cushing's, porphyria, carcinoid.
- Trauma: Head injury.
- Epilepsy: e.g. post-ictal.
- Neoplasia: Primary/secondary cerebral malignancy, paraneoplastic syndromes
- Multiple aetiology
- Unknown aetiology

Assessment

Need collateral history for pre-morbid level of function.

- Usually acute or subacute presentation.
- Fluctuating course, worse at night.
- Consciousness is clouded.
- Impaired cognition.
- Disorientation.
- Poor attention.
- Memory deficit (mostly short-term)
- Abnormalities of sleep-wake cycle
- Hallucinations or illusions.
- Agitation.
- Emotional lability.
- Transient psychotic ideas
- Neurological signs -e.g. unsteady gait and tremor.

Subtypes – Hypoactive (apathy/confused), hyperactive (agitated/disorientated), and mixed.
Full examination - look for sources of infection, rashes, LN, constipation.

Investigations

- Serial mini-mental test scores.
- Urine dipstick and microscopy.
- Bloods – FBC, UEC, glucose, CMP, LFT, TFT, CK/Trp, B12, autoantibody screen & PSA
- Blood cultures and serology (syphilis) if indicated.
- Arterial blood gas and LP if indicated.
- ECG.
- Radiology: CXR, AXR, head CT
- EEG – not normally req - shows generalised diffuse slowing in 80%

Differential Diagnosis

- Dementia – e.g. Lewy body type dementia which also typically has a fluctuating course
- Psychiatric - depression, bipolar disorder, functional psychoses e.g. schizophrenia.

Management

The underlying cause needs to be treated.

Supportive management

- Maintain hydration, stop unnecessary medications.
- Clear communication, reminders of time, location & people. Keep consistency.
- Use glasses, walking aids and hearing aids.
- Have familiar objects/people from home environment.

Environmental measures

- Adequate space, low noise, good lighting, stable temperature, promote sleep

Medical management

- Try to minimize drug use as can worsen delirium.
- Small doses of haloperidol 0.5 -1.0 mg IM/IV although risk of EPSE's.
- Short-acting BDZ can be used but may cause sedation or delirium themselves.
- Olanzapine and risperidone may help.

Management post-discharge

- The symptoms of delirium may last longer than the underlying condition.
- Families and carers may also need to be supported and given advice and reassurance.

Complications of delirium

- Residual psychiatric and cognitive impairment.
- Some progress to stupor, coma and eventual death.

Prognosis

Mortality rate in elderly hospitalised patients is variable ~20-75%
Some patients may not recover for months or become institutionalized after delirium.
Patients with malignancy or HIV also have a worse prognosis.

Prevention

Awareness of high risk patients and subsequent close observation for delirium with prompt assessment and management can potentially reduce morbidity and mortality.