Acute Confusional State

Gerald Lane
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Gerald Lane
Medical Intern to Dr Watts
Dept of the Elderly 30-10-03
• A transient organic mental syndrome of acute onset, characterised by
  • Global impairment of cognitive functions
  • Reduced level of consciousness
  • Attentional abnormalities
  • ↑/↓ psychomotor activity
  • Disordered sleep-wake cycle
• Synonyms
  • Acute confusional state
  • Acute encephalopathy
  • Acute brain syndrome
  • Toxic psychosis
  • Acute organic psychosyndrome
• Based on disturbed psychomotor activity

• Hyperactive
  • Hyperactive, agitation, hallucinations, delusions and disorientation

• Hypoactive
  • Lethargic, hypoactive

• Features of both
• Point prevalence in general hospital: 10-30%
• Elderly on general medical units
  • Prevalence 16% on admission
  • Incidence of new cases: 6%
• Advanced cancer patients
  • Prevalence 42% on admission
• Disturbance of consciousness
• Change in cognition
• Occurs over a short time period (and fluctuates)
• Evidence from hx, physical exam or lab findings
  • General medical condition
  • Substance intoxication
• Infection
  • UTI, RTI, septicaemia, meningitis, encephalitis

• Meds/Toxins
  • Medications/drug – Intoxication/withdrawal

• Cardiovascular events

• Operative events

• Fluid/electrolyte imbalance
• Metabolic disorders
  • Glucose ↑/↓
  • Vit B12, Thiamine, Nicotinic acid deficiencies

• Systemic disease
  • Renal/liver failure, thyroid disorders
  • Hypoxia 2° to Cardiac/Respiratory failure
  • Hypertensive crisis
• Especially in the elderly and the critically ill

• 56% of elderly with delirium have a single definite or probable aetiology for delirium

• The remaining 44% had an average of 2.8 aetiologies per patient
• Advanced age
• Preexisting dementia or cognitive impairment
• Severe chronic medical illness
• Significant preexisting psych disorder
• Medication use – esp polypharmacy
• Intoxication with legal or illicit substances
• Assess mental state – MTS, Folstein’s MMSE
• Hx (+ collateral)
• Physical examination
• Medications r/v
• Laboratory evaluation
• Radiological evaluation
- **Onset**
  - Acute/sub-acute/chronic
- **P.M.Hx**
  - DM, Thyroid dysfunction
  - Carcinoma, $\uparrow\text{Ca}^{2+}$
  - Liver Failure, renal disease
• Associated symptoms
  • Motor weakness
  • Sensory deficit
  • Pyrexia
  • cough, purulent sputum, SOB
  • dysuria, frequency, haematuria
• Medications
  • Anaesthetics, analgesics, antiasthmatic agents, anticonvulsants, antihistamines, antihypertensives, antimicrobials, antiparkinsonian meds, steroids, ms relaxants, immunosuppressive agents, lithium and psychotropic medications with anticholinergic properties

• Toxins
  • Anticholinesterase, insecticides, CO, CO2, organic solvents
• NB – full and thorough examination
• Assess vitals ↑T, ↑HR, ↑BP, ↑RR
• Any obvious sign of head trauma
• Any obvious source of infection
  • Chest, urinary retention, faecal impaction
• Focal neurological signs
• Systemic disorders
  • Urine, blood cultures
  • WBC, CRP, U&Es, Glucose, LFTs, C/Es, Trop T
  • ABGs, ECG, CxR
  • Also – Mg^{2+}, amylase, thiamine, Vit B_{12}
• CNS disorders
• Treat cause

• Nurse in a moderately lit room, with repeated reassurance

• Family member to room-in

• Close observation

• Maintain hydration

• Maintain surroundings
• Prodromal symps may last 1-3 days

• Duration of symps generally 10-12 days

• In 15% of pts delirium last > 30 days

• May progress to stupor, coma, seizures & death if not treated

• Elderly pts > likelihood of long symp duration
• Most patients recover fully

• ↓ Likelihood of recovery in the elderly

• Estimated full recovery by d/c time  4-40%

• ↑ Length of hospital stay

• ↑ Risk of developing dementia (18.1% vs. 5.6%)

• Associated with ↑ mortality rate

• Elderly 22-76% chance of dying in this admission
• Typically occurs when illness/hospitalisation interrupts alcohol intake

• Nausea, irritability, tremors, diaphoresis, hallucinations

• Seizures
  • 12-48hrs post cessation

• Delerium Tremens
A controlled clinical trial using prospective individual matching to compare patients admitted to one intervention and two usual-care units at a teaching hospital

Based in New Haven Hospital, Yale

852 patients matched for age, sex, delirium risk

Matched patients admitted w/i 180 days of each other

March 1995-98
• Multidisciplinary team

• Standardised protocols for the mx of 6 risk factors for delirium
  - Cognitive impairment
  - Sleep deprivation
  - Immobility
  - Visual impairment
• Delirium developed in 9.9% of intervention group vs. 15.0% in usual care group

• Total no. of days with delirium, and no. of episodes of delirium were much lower in the intervention group (105 vs 161, 62 vs 90 respectively [p=0.02])

• Severity & recurrence rates not significantly different btw groups

• Intervention assoc with significant improvement in the degree of cognitive impairment, in those with
• Delirium is a common phenomenon especially amongst the elderly, AIDS and cancer patients

• Key to Mx is a full history (+collateral), physical examination, mental state evaluation, Drug history and serial laboratory investigations

• Main treatment – treat cause, avoid sedation

• Causes are wide and varied, often multifactorial, but commonly due to
  • Infection, drugs, dehydration, post-op & cardiovascular events
2. WWW.UPCMD.COM
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5. Washington Manual of Medical Therapeutics 30th edn
7. Sharon K et al. NEJM 1999;340(9):669-676