

Diagnosis and forms of management of delirium nursing essay



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Delirium is a very common medical condition marked by changes in clinical and mental status. This is one of the most frequent reasons psychiatrists are consulted throughout the world. The referrals come from a variety of sources ranging from ICU to primary care, medical, surgical and orthopedic wards.

Delirium occurs in 15% to 60% of nursing home patients, 14% to 56% of inpatients, and up to 60% to 87% of patients in the intensive care unit (ICU).

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It occurs more commonly (up to 30%) in elderly individuals causing significant morbidity and increased mortality in this patient group 3, 4. It has got serious repercussions in terms of residual morbidity and loss of quality of life among the sufferers. The cost of the treatment of the acute episode and its sequelae are huge to the service provider. It is believed that delirium in elder people is a marker for future dementia and early death⁵.

The problem is that it is often unrecognised especially amongst individuals who do not get behavioral disturbance. Even after recognition it is often treated insufficiently. Delirium may be prevented in up to one third of older patients¹.

It is therefore important to revisit and review the management of delirium according to current evidence.

Diagnosis

The diagnosis of delirium is often difficult due to the variety of behavioral and cognitive symptoms it can present with and the fact that all of its signs can fluctuate within seconds.

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Delirium is characterized by

Fluctuating disturbance of consciousness- manifesting as problems in concentration and attention.

Perceptual disturbance like illusions or hallucinations. Which can develop or recover quickly.

Disturbed psychomotor behaviour,

Disturbed sleep-wake schedule.

Presentation

Delirium may present in one of the following ways

Hypoactive – This is characterized by reduced motor activity and lethargy.

The diagnosis is often missed.

Hyperactive- This is manifested as patient being overactive may be agitated and displaying inappropriate behaviour. The patient is loud, resistive, hyper vigilant, and often problematic

Mixed subtype- which is the most common type8 can have symptoms of both at different times.

Aetiology

The etiology of delirium is usually multifactorial. Condition like old age, co incident medical illnesses and preexisting cognitive impairment can

precipitate or aggravate the signs and symptoms of delirium. Almost any illness can give rise to delirium in the susceptible person.

For example illnesses related to:

Cardiological conditions like myocardial infarction, heart failure.

Respiratory conditions like pulmonary embolus or hypoxic conditions.

Neurological conditions like stroke or subdural hematoma.

Electrolyte imbalance.

Drugs particularly those with anticholinergic side effects like tricyclic antidepressants, antiparkinsonian drugs⁹ or steroids and benzodiazepines.

Alcohol withdrawal.

Urinary retention, fecal impaction

Infection

Severe pain

Post operative stage.

Differential diagnosis

Usual conditions that can complicate the presentation, diagnosis and management of delirium are

Dementia.

Affective disorders like depression or manic state.

Schizophrenia.

Non convulsive seizure

Temporal lobe epilepsy

Assessment

History: A good and thorough history is the cornerstone of diagnosis. It is often necessary to get a collateral story from relatives and ward staff.

Among other things one needs to know-

Onset and course of symptoms

Previous intellectual and functional level like daily living skills

List of medications both prescribed and non-prescribed drugs including recent additions or omissions.

Alcohol intake history

Similar episodes having symptoms of delirium.

Sensory deficits – use of hearing aid, glasses etc.

Co- morbid illness

Assessment tools: There are some standardised tools used to assist in diagnosis like-Mini Mental State Examination (MMSE)⁶ or Confusion

Assessment Method (CAM) screening instrument⁷.

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Examination

A full physical examination is essential focusing especially on the consciousness level, evidence of alcohol abuse or withdrawal, possible sources of infection, neurological examination (including assessment of speech) and rectal examination – if impaction is suspected.

Investigations

The base line investigations which are essential in order to identify the underlying cause of delirium are full blood count, urea and electrolytes, liver function tests, blood glucose, blood cultures, urinalysis, chest X-ray, ECG. Depending upon history and examination some other investigations may be indicated like:

CT head – if an intracranial lesion or head injury is suspected.

Serum Calcium level

Serum B12 and folate level

Arterial blood gases to check for metabolic alkalosis

Treatment

The overall approach is to treat the cause which is deemed to have given rise to the delirium and to provide a structured and predictable environment in which the medical illness can be treated adequately

Treating the cause

The offending illness should be aggressively diagnosed and treated adequately. Pneumonia and UTI are the usual causes in terms of infection. They should be treated by appropriate antibiotics.

Metabolic causes and electrolyte disturbances should be diagnosed and treated promptly.

Removing offending medication

Medications that alter the dopamine/acetylcholine balance within the CNS are usually the culprits. In the pathophysiology of delirium it has been postulated that cerebral anoxia and dopamine excess has a role to play in production of the cognitive symptoms of delirium¹⁰.

Commonly medications that have been found to cause such symptoms are opiate analgesics, benzodiazepines, tricyclic antidepressants, steroid, antipsychotics, digoxin and anticholinergic drugs like oxybutynin and antiparkinsonian drugs.

One needs to carefully evaluate which of them can be safely withdrawn or reduced in dose. Ideally, benzodiazepine use should be completely avoided.

Non -pharmacological interventions-

Management should also address the symptomatic relief of the syndrome.

This may include

Use of supplementary oxygen to keep oxygen saturation above 95%. This is essential to support higher cortical functions and to meet the increased metabolic demand.

Ensuring proper hydration by improving oral fluid intake or IV fluid if necessary.

Maintaining nutrition

Maintain/ restore normal sleep pattern.

Prevent constipation

There are some common concerns faced by the nursing staff while managing the care of a person with delirium. Some of these concerns may be addressed on the following principles.

Physical restraint should be avoided as much as possible and is to be used only to ensure safety of the patient¹¹.

Wandering: Patients at risk of wandering should be nursed in a reasonably closed and safe environment. It is often possible to distract the wandering patient. Relatives may help in suggesting alternatives means of distractions that may be more meaningful for the patient. If this does not work the least restrictive option should be used which should be in the best interests of the patient

Agitation The cause for agitation needs to be identified and treated. Usual causes of agitation are pain, thirst, need for voiding, retention of urine etc.

Catheterization should be avoided if possible because of risk of injury to urethra by pulling on it in agitated patient.

Environmental Management

The patient with delirium is unable to manage a complex environment and adjust to the rapid changes going around them and respond adequately to multiple sensory stimuli in a balanced way. Therefore the plan should be to modify the environment for them.

The patient should preferably be nursed in a quite single room with appropriate lighting to avoid the possibility of misperception. Regular and repeated reminders of the time and place help to improve the patient's orientation. Family members and friends should be encouraged to visit which may help to calm the patient

Sensory impairment should be appropriately dealt with by providing hearing aids and glasses if the person needs them. There should be consistency in nursing staff. The approach should be gentle. Unnecessary distractions are to be minimized like television, bleep, mobile phones and public address systems.

Change of environment like inter or intra ward transfer should be avoided¹².

Mobilizing the patient early is helpful in minimizing recovery time and may assist in rehabilitation of muscle strength after critical illness.

The patient must be kept safe by limiting dangerous objects around the patient ensuring that they don't fall whilst mobilising

Psychological intervention:

Patient with delirium are likely to talk in a confused and rambling way. One should not collude with the contents of what they are saying. It is better to tactfully disagreeing or change the topic. Any delusional content in the speech shouldn't be disputed directly.

Pharmacological management

The main aim of drug treatment in delirium is to treat behavioural disturbance like agitation and hallucination that can be distressing or dangerous to the patient and to minimize risk of harm to others. It is often a matter of striking a balance between effective management of symptoms of delirium and troublesome adverse effects of the medication.

Drugs mainly used in the treatment of delirium are benzodiazepine and antipsychotics. Their use should be kept to a minimum. It is best to use one drug only at a time, starting at a low dose and if necessary increasing the dose after a few hours.

In terms of antipsychotics haloperidol has been the most widely used medication so far and has been the gold standard in treatment of delirium. Haloperidol can be administered by intravenous, intramuscular or oral routes.

Regarding use of second generation antipsychotics they have been extensively used in treatment of delirium all over the world but robust evidence in terms of well designed and conducted double blind placebo controlled trials is lacking. One of the first atypical antipsychotic agents

approved for use in USA in delirium was risperidone. A double-blind trial comparing risperidone with haloperidol demonstrated equivalence in efficacy and response rates¹⁵. But another large scale study failed to replicate such advantage of risperidone over haoperidol¹⁶, Olanzapine was also found to be beneficial in treatment of delirium. In a study done in Canada in critical care setting olanzapine was found to be as efficacious as haloperidol and had less extrapyramidal side effects and sedation¹⁷.

Quetiapine has not been studied extensively in treatment of delirium but there has been a few case series and open-labelled trials which showed good results¹⁸

A systematic review done by Campbell et al in 2009 looked at studies published between January 1966 to October 2008¹³. This included randomized, controlled trials comparing typical and second generation antipsychotics either to each other or placebo. This review concluded that there was no superiority for second-generation antipsychotics over haloperidol in managing delirium. Another review done by Peritogiannis et al looked at studies done between 1997 to 2008 indicated that atypical antipsychotics were well tolerated in terms of troublesome side effects such as extra pyramidal side effects and were effective and safe in symptomatic treatment of delirium but the evidence was inconclusive.

Currently there is little evidence to support the use of second-generation antipsychotics over haloperidol in managing delirium.

Haloperidol is the most frequently used and best studied antipsychotic medication for delirium. This may be due to its few anticholinergic side effects, few active metabolites, and small likelihood of causing sedation.

It is used at a small dose of 0.5 mg orally which can be given up to two hourly. A maximum dosage of 5 mg (orally or IM) in 24 hours is a generally acceptable but more amount may be required depending on the severity of distress and, severity of the psychotic symptoms.

Sedation should only be used in situations where behavioral management is not effective or quick control is desirable. If sedatives are prescribed, it should be reviewed regularly and discontinued as soon as possible. The aim should be to taper off any sedatives within 24 - 48 hours.

Benzodiazepines have a unique role in treatment of it is very useful in short term in treating agitation and aggression. On the other hand it can aggravate the symptoms of delirium particularly in patients with dementia. They are not as effective as antipsychotics when used as a single drug. In combination with antipsychotics they have been used to good effect

Benzodiazepines are the preferred treatment for delirium associated with seizures or withdrawal from alcohol (delirium tremens), where it should be used in a reducing dose.

Lorazepam is the preferred drug in this group due to its rapid onset and shorter duration of action, whether used orally and intramuscularly.

Other pharmacological interventions have been used elsewhere in different circumstances with varying degrees of success. Intravenous flumazenil, has <https://assignbuster.com/diagnosis-and-forms-of-management-of-delirium-nursing-essay/>

been used successfully in a small number of patient based on the theory of GABA antagonism, temporarily¹⁹.

Anticholine esterase drugs have also been used in treatment of delirium with varying grades of success more so in cases of delirium like symptoms in Lewy body dementia.

Disruption of the sleep-wake cycle may be a vital element in development of postoperative delirium. On this basis melatonin (being important in maintaining normal sleep) has been used with good effect to treat postoperative delirium²⁰.

Prevention

There has been a lot of interest in preventing delirium in high-risk populations such as post operative elderly patients by managing postoperative pain. But the effectiveness of this approach has not been well established. However it did have a beneficial effect on the duration and severity of this disorder²¹

Managing the patients after discharge

It should be ensured that the delirium has been properly investigated and treated before discharge. Discharge should be planned in consultation with other professionals involved in caring for the patient, both in hospital and in the community.

Follow up

Delirium is commonly followed by dementia or may be a precursor of severe illness and co morbidity. It is therefore often necessary to refer the patient to a Geriatrician, or a Psychiatrist of Old Age.