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## CATATONIC SCHIZOPHRENIA- CASE STUDY

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### ABSTRACT

Osteoporosis is being increasingly recognised in paediatric practice as a consequence of several factors. In addition, the improved medical and nursing care provided to children with chronic illness has led to many of them living long enough to develop osteoporosis. The availability of methods to assess bone density in children as a surrogate marker of bone strength and the possibility of medical treatment to increase bone density have also resulted in an increased awareness of groups of children who may be at risk of osteoporosis. Osteoporosis in children may be primary due to an intrinsic bone abnormality (usually genetic in origin) or secondary due to an underlying medical condition and/or its treatment. The effects of this disease can best be managed with early diagnosis and treatment. In secondary osteoporosis, treatment may include treating the underlying cause of the disease.

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### INTRODUCTION

Catatonic schizophrenia is a type (or subtype) of schizophrenia that includes extremes of behaviour. At one end of the extreme the patient cannot speak, move or respond - there is a dramatic reduction in activity where virtually all movement stops, as in a catatonic stupor. At the other end of the extreme they are overexcited or hyperactive, sometimes mimicking sounds (echolalia) or movements (echopraxia) around them - often referred to as catatonic excitement. Patients may also present other disturbances of movement - seemingly purposeless actions are performed repetitively (stereotypic behaviour), sometimes to the exclusion of involvement in any creative or productive activity.

Sometimes an individual with catatonic schizophrenia may deliberately assume bizarre body positions, or manifest unusual limb movements or facial contortions, sometimes resulting in the misdiagnosis with tardive dyskinesia. A patient with catatonic schizophrenia may stay immobile for long periods, in positions we may think are extremely uncomfortable; they may resist attempts to reposition them. The individual may resist any attempt to change how he/she appears. Catatonic schizophrenia is much rarer today than it used to be, because treatments have improved. Experts say that to be in a state of catatonia is more likely to affect individuals with other types of mental illnesses, rather than schizophrenia. With treatments available today, patients with catatonic schizophrenia are much better able to manage their symptoms,

making the likelihood of leading a happier and healthier life much greater.

#### Case Report

Mr. X is a 56-year-old male diagnosed with paranoid schizophrenia at the age of 32. He was hospitalized several times due to psychotic episodes characterized by religious delusions and auditory and visual hallucinations. He is living in an assisted living facility, where the medication is offered to the residents, but where they have to take it by themselves. He uses cannabis daily and does not use any other substances. He developed a progressive condition in which he showed less mimicry, staring, negativism, mutism, and immobility. There were no signs of autonomic dysregulation, such as increased body temperature or unstable blood pressure.

Because catatonia was assumed, he was orally treated with lorazepam, starting at 2 mg a day. The lorazepam dose was increased based on the clinical state until 40 mg a day without any subjective or objective effects. He was admitted to the psychiatric ward to receive parenterally administered lorazepam up to 60 mg daily. After 2 days, there still was no measurable effect nor was there any effect on his consciousness. We resumed oral treatment with lorazepam 40 mgs daily and patient agreed to undergo ECT. During the lorazepam and ECT treatment, the patient continued to receive 30 mg of flupentixoldecanoate every 2 weeks. After 3 ECT sessions, the catatonic signs receded rapidly and patient refused to take the lorazepam, because "he was cured."

He soon afterward developed an acute catatonic state, in which he was found completely immobile next to his bed. He received lorazepam immediately and ECT the following days. After 2 more ECT sessions, the catatonic signs receded again. During the weeks afterward, patient received 40 mgs lorazepam daily, which was reduced and finally stopped on his demand.

A few months afterward, patient presented to the acute psychiatric service with signs of acute dystonia (cervical dystonia and dysphagia). He was treated with biperiden 2 mg and the dystonia almost immediately disappeared. Flupentixoldecanoate dosage was lowered to 20 mgs every 2 weeks. Patient denied the use of any drugs except cannabis and urine examination confirmed this. After this episode, patient experienced several other episodes of dystonia, each time successfully treated with biperiden 2 mgs.

### **Signs and Symptoms**

A symptom is something the patient senses and describes, while a sign is something other people, such as the doctor notice. For example, drowsiness may be a symptom while dilated pupils may be a sign.

- Physically immobile - the patient cannot speak or move. They may stare and hold their body in a fixed position. They appear to be unaware of their surroundings (catatonic stupor).
- Waxy flexibility - this is part of physical immobility. If the patient's arm, for example, is moved by someone else into a certain position, it remains in that position for possibly hours.
- Excessive mobility - the patient moves excitedly with what appears to have no specific or useful purpose. This may include pacing around energetically, walking in circles, making loud and unusual utterances.
- Uncooperative - the patient may resist any attempt to move them. They may say absolutely nothing (not speak) and not respond to instructions.
- Strange movements - the patient's posture may be unusual or inappropriate. There may be bizarre mannerisms and grimacing.
- Unusual behaviour - the patient may repeat words, follow a ritual/routine with obsession. He/she may be obsessed with lining things up in a specific way.
- Echolalia (mimicking utterances) and/or Echopraxia (mimicking movements) - the patient may repeat something someone else has just said. There may be repetition of a movement or gesture made by another person.
- Apart from the above, which are examples of catatonic schizophrenia symptoms, the patients may also have the following signs and symptoms of schizophrenia:
- Delusions - The patient has false beliefs of persecution, guilt of grandeur. He/she may feel things are being controlled from outside. It is not uncommon for people with schizophrenia to describe plots against them. They may think they have extraordinary powers and gifts. Some patients with schizophrenia may hide in order to protect themselves from an imagined persecution.
- Hallucinations - hearing voices is much more common than seeing, feeling, tasting, or smelling things which are not there, but seem very real to the patient.

- Thought disorder - the person may jump from one subject to another for no logical reason. The speaker may be hard to follow. The patient's speech might be muddled and incoherent. In some cases the patient may believe that somebody is messing with his/her mind.
- Lack of motivation (avolition) - the patient loses his/her drive. Everyday automatic actions, such as washing and cooking are abandoned. It is important that those close to the patient understand that this loss of drive is due to the illness, and has nothing to do with slothfulness.
- Poor expression of emotions - responses to happy or sad occasions may be lacking, or inappropriate.
- Social withdrawal - when a patient with schizophrenia withdraws socially it is often because he/she believes somebody is going to harm them. Other reasons could be a fear of interacting with other humans because of poor social skills.
- Unaware of illness - as the hallucinations and delusions seem so real for the patients, many of them may not believe they are ill. They may refuse to take medications which could help them enormously for fear of side-effects, for example.
- Cognitive difficulties - the patient's ability to concentrate, remember things, plan ahead, and to organize himself /herself are affected. Communication becomes more difficult.

There may also be incoherent speech, poor personal hygiene, angry outburst, and uncoordinated movements (clumsiness).

***Without proper treatment a catatonic episode can persist for days and even weeks***

### **Causes**

- Genetics - children with a family history of schizophrenia have a higher risk of developing it themselves. If there is no history of schizophrenia in your family your chances of developing it (any type, child-onset or adult-onset schizophrenia) are less than 1%. However, that risk rises to 10% if one of your parents was/is a sufferer.
- Viral infection - if the fetus (unborn baby in the womb) is exposed to a viral infection, there is a bigger risk of developing schizophrenia.
- Fetal malnutrition - if the fetus suffers from malnutrition during the mother's pregnancy there is a higher risk of developing schizophrenia.
- Stress during early life - experts say that severe stress early on in life may be a contributory factor towards the development of schizophrenia. Stressful experiences often precede the emergence of schizophrenia. Before any acute symptoms are apparent, people with schizophrenia habitually become bad-tempered, anxious, and unfocussed. This can trigger relationship problems. These factors are often blamed for the onset of the disease, when really it was the other way round - the disease caused the crisis. Therefore, it is extremely difficult to know whether schizophrenia caused certain stresses or occurred as a result of them.
- Childhood abuse or trauma
- Age of parents when baby is born - older parents have a higher risk of having children who subsequently develop schizophrenia, compared to younger parents.

- Drugs - the use of drugs that affect the mind or mental processes during adolescence may sometimes raise the risk of developing schizophrenia.

### Diagnosis

- Physical exam - the patient's height, weight, heart rate, blood pressure, temperature are checked. The doctor will listen to the heart and lungs, and check the abdomen.
- CBC (complete blood count) - to check for alcohol and drugs, as well as thyroid function.
- MRI (magnetic resonance imaging) or CT (computed tomography) scan - the aim here is to look for brain lesions or any abnormalities in the brain structure.
- EEG (electroencephalogram) - to check for brain function.

**Psychological evaluation** - the psychiatrist will ask the patient (if possible) about their thoughts, feelings and behaviour patterns. They will discuss symptoms, when they started, how severe they are, and how they affect the patient's life. The doctor will also try to find out how often and when episodes had occurred.

The diagnostic criteria for catatonic schizophrenia include:

- Inability to move
- Inability to speak
- Staying still for a long time (in the same position)
- Overly excited (or excessive) seemingly non-purposeful behaviour
- Resistance to being; being uncooperative (resisting instructions)
- Grimacing, unusual postures, odd movements
- Echolalia and Echopraxia - mimicking what other people say and mimicking other people's movements

### Treatment

#### Medication

- Benzodiazepines - this is a class of drugs that act as tranquilizers. They are regularly used to treat anxiety; hence they are also called anti-anxiety medications. Benzodiazepines are usually the medication of choice for catatonic schizophrenia. The drug is fast acting and may be administered intravenously (injected into a vein, perhaps the only way if the patient is in a state of catatonia). Benzodiazepines help relieve catatonic symptoms rapidly. There is a risk of dependency if used for a long time. To relieve catatonic symptoms the patient may have to take this medication for several days or weeks.
- Barbiturates - drugs that act as CNS (central nervous system) depressants - their effects may range from mild sedation to total anaesthesia. Put simply - they are sedatives and have a similar effect as benzodiazepines. Barbiturates can rapidly relieve the symptoms of catatonia. If used for a long time there is a risk of dependency. This drug is not routinely used for catatonic schizophrenia treatment.
- Antidepressants and mood-stabilizing drugs - people with catatonic schizophrenia often have other mental health problems/illnesses, such as depression, aggression or hostility.

- Antipsychotic medications - these are generally used for schizophrenia. As antipsychotics may worsen catatonic symptoms, they are not usually used for patients with catatonic schizophrenia.
- ECT (electroconvulsive therapy) - this is a procedure in which an electric current is sent through the brain to produce controlled seizures (convulsion). It is sometimes used on patients with depression who either have not responded or cannot take antidepressants. It is also sometimes used for patients with very severe depression, or those at high risk of suicide. Experts believe that ECT triggers a massive neurochemical release in the brain, caused by the controlled seizure. ECT is sometimes used for catatonic patients who have not responded to medications or other treatments. Side effects may include short-term memory loss (usually resolves rapidly). It is important that the doctor explain clearly the pros and cons of ECT to the patient and/or guardian or family member.
- Hospitalization - this may be necessary during severe episodes. Patients are safer in a hospital setting; they are more likely to get proper nutrition, sleep and hygiene, as well as the right treatment. Sometimes partial hospitalization is possible.
- Psychotherapy - for patients with catatonic schizophrenia, medications are the main part of treatment; however, psychotherapy is also an important part. If symptoms are extremely severe, psychotherapy may not be appropriate.
- Psychotherapy consists of a series of techniques for treating mental health, emotional and some psychiatric disorders. Psychotherapy helps the patient understand what helps them feel positive or anxious, as well as accepting their strong and weak points. If people can identify their feelings and ways of thinking they become better at coping with difficult situations.
- Social and vocational skills training - this may help the patient live independently; a vital part of recovery for the patient. The therapist can help the patient learn good hygiene, prepare nutritional meals, and have better communication. There may be help in finding work, housing and joining self-help groups.
- Compliance (adherence) - compliance or adherence in medicine means following the therapy regime (the treatment plan). Unfortunately, lack of compliance is a major problem for patients with schizophrenia. Experts say that a significant percentage of patients go off their medication within the first twelve months of treatment. In order to address this, successful schizophrenia treatment needs to consist of a life-long regimen of both drug and psychosocial, support therapies.

#### Possible Complications

Depressions --> Suicidal thoughts --> Suicidal behavior - a significant number of patients with schizophrenia have periods of depression. Depression symptoms should not be ignored, as there is a risk that it may worsen and lead to suicidal thoughts and behaviours if left untreated. The National Health Service (NHS), UK says that "Research has found that 30% of people with schizophrenia will attempt suicide at least once, and 1 in 10 people with schizophrenia will commit suicide." (This refers to schizophrenia in general and not specifically to catatonic schizophrenia).

- Malnutrition
- Hygiene problems

Substance abuse - which may include alcohol, prescription medications and illegal drugs

Inability to find or maintain employment, resulting in poverty and homelessness. The patient may feel reluctant to re-enter the job market because of fears of being unable to cope with responsibilities. Experts say that individuals who manage to continue working tend to have a better quality of life compared to those who don't - therefore, it is recommended that the patient try to return to work.

1. Prison
2. Serious family conflicts
3. Inability to study or attend school and other educational institutions
4. Being a victim of crime
5. Being a perpetrator of crime
6. Smoking-related diseases

#### **Diagnoses Nursing Care Plans For Schizophrenia**

- Anxiety
- Bathing or hygiene self-care deficit
- Disabled family coping
- Disturbed body image
- Disturbed personal identity
- Disturbed sensory perception (auditory, visual, kinesthetic)
- Disturbed sleep pattern
- Disturbed thought processes
- Dressing or grooming self-care deficit
- Fear
- Hopelessness
- Imbalanced nutrition: Less than body requirements
- Impaired home maintenance
- Impaired social interaction
- Impaired verbal communication
- Ineffective coping
- Ineffective role performance
- Powerlessness
- Risk for injury
- Risk for other-directed violence
- Risk for self-directed violence
- Social isolation

#### **Key Outcomes Nursing Care Plans For Schizophrenia**

1. The patient will consider an alternative interpretation of a situation without becoming unduly hostile or anxious.
2. The patient will perform bathing and hygiene activities to the fullest extent possible.
3. The patient's family will demonstrate adaptive coping behaviors.
4. The patient will verbalize positive feelings about self.
5. The patient will identify internal and external factors that trigger delusional episodes.
6. The patient will maintain maximum functioning within the limits of his auditory, visual, or kinesthetic impairment.
7. The patient will resume appropriate rest and activity patterns.
8. The patient will identify and perform activities that decrease delusions.

9. The patient will perform dressing and grooming activities to the fullest extent possible.
10. The patient will express fears and concerns.
11. The patient and his family will participate in care and prescribed therapies.
12. The patient will remain free from signs of malnutrition.
13. The patient will develop effective coping behaviors.
14. The patient will maintain usual roles and responsibilities to the fullest extent possible.
15. The patient will recognize symptoms and comply with medication regimen.
16. The patient will demonstrate effective social interaction skills in both one-on-one and group settings.
17. The patient will express his needs.
18. The patient will gradually join in self-care and the decision-making process.
19. The patient will remain free from injury.
20. The patient won't harm others.
21. The patient won't harm self or others.
22. The patient will maintain family and peer relationships.

#### **Interventions Nursing Care Plans For Schizophrenia**

1. Assess the patient's ability to carry out the activities of daily living. Monitor his weight if he isn't eating. If he thinks that his food is poisoned, allow him to fix his own food when possible, or offer him foods in closed containers that he can open. If you give liquid medication in a unit-dose container, allow the patient to open the container.
2. Maintain a safe environment, minimizing stimuli. Administer medication to decrease symptoms and anxiety. Use physical restraints according to your facility's policy to ensure the patient's safety and that of others.
3. Adopt an accepting and consistent approach with the patient. Don't avoid or overwhelm him. Keep in mind that short, repeated contacts are best until trust has been established.
4. Avoid promoting dependence. Meet the patient's needs, but only do for the patient what he can't do for himself.
5. Reward positive behavior to help the patient improve his level of functioning.
6. Engage the patient in reality-oriented activities that involve human contact: inpatient social skills training groups, outpatient day care, and sheltered workshops. Provide reality-based explanations for distorted body images or hypochondriacal complaints.
7. Clarify private language, autistic inventions, or neologisms, explaining to the patient that what he says isn't understood by others. If necessary, set limits on inappropriate behavior.
8. If the patient is hallucinating, explore the content of the hallucinations. If he has auditory hallucinations, determine if they're command hallucinations that place the patient or others at risk. Tell the patient you don't hear the voices but you know they're real to him. Avoid arguing about the hallucinations; if possible, change the subject.
9. Don't tease or joke with the patient. Choose words and phrases that are unambiguous and clearly understood. For instance, a patient who's told, That procedure will be done on the floor, may become frightened, thinking he is being told to lie down on the floor.

10. Don't touch the patient without telling him first exactly what you're going to do. For example, clearly explain to him, I'm going to put this cuff on your arm so I can take your blood pressure. If necessary, postpone procedures that require physical contact with facility personnel until the patient is less suspicious or agitated.
11. Remember, institutionalization may produce new symptoms and handicaps in the patient that aren't part of his diagnosed illness, so evaluate symptoms carefully.
12. Mobilize community resources to provide a support system for the patient and reduce his vulnerability to stress. Ongoing support is essential to his mastery of social skills.
13. Encourage compliance with the medication regimen to prevent relapse. Also monitor the patient carefully for adverse effects of drug therapy, including drug-induced parkinsonism, acute dystonia, akathisia, tardive dyskinesia, and malignant neuroleptic syndrome. Make sure you document and report such effects promptly.

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