

DRUG-INDUCED MOVEMENT DISORDERS

FACTS

- Many therapeutic medicines and illicit drugs can cause movement disorders.
- Medications commonly associated with movement disorders include strong psychiatric medicines used to treat schizophrenia, bipolar disorder, and some depressions, and certain gastrointestinal medications such as Reglan, Phenergan, and Compazine. These medications are dopamine receptor blocking agents, or DRBAs.
- In many cases, early identification and treatment can lead to stopping of the abnormal movement.
- The time between taking the medication and the onset of the abnormal movement is classified as acute, subacute, or chronic.

ACUTE DISORDERS

- Symptoms begin within minutes to days of starting the medication.
- Associated with the use of DRBAs, selective serotonin reuptake inhibitors and cocaine.

Tremor

- Causes
 - Lithium
 - Seizure medication
 - Depression medication
 - Stimulants
- Symptoms
 - Symmetric involuntary shaking of hands, arms, head or eyelids

- Treatment
 - Treatment may not be needed if the tremor is mild and does not interfere with daily living.
 - The offending medication may be discontinued.

Acute dystonic reaction

- More common in young people
- Causes
 - DRBAs
- Symptoms
 - Sudden, sustained contraction of the neck muscles resulting in pulling the head backward or the eyes rolling backward
- Treatment
 - Injection of Benadryl

Serotonin Syndrome

- Potentially life-threatening complication due to increased serotonin activity
- Causes
 - Antidepressants
 - Seizure medications
 - Opioids
 - Migraine drugs
- Symptoms
 - Confusion or reduced alertness
 - Tremors
 - Increased reflexes
 - Fever
 - Elevated heart rate
- Treatment
 - Discontinue the offending medication.

- May require supportive care in an Intensive Care Unit

Neuroleptic Malignant Syndrome (NMS)

- Potentially life-threatening reaction to DRBAs
- Symptoms
 - Fever
 - Rigidity
 - Confusion or reduced alertness
 - Unstable heart rate, breathing and blood pressure
- Treatment
 - Discontinue the offending medication.
 - Administer a pro-dopamine medication.
 - May require supportive care in an Intensive Care Unit

Parkinsonism-Hyperpyrexia Syndrome

- Causes
 - Abruptly stopping dopamine Parkinson's Disease medications
 - Levodopa
 - Pramipexole
 - Ropinirole
 - Rotigotine
 - Amantadine
- Symptoms
 - Appears the same as NMS above.
- Treatment
 - Restart the Parkinson's disease medication.
 - May require supportive care in an Intensive Care Unit

SUBACUTE DISORDERS

- Symptoms begin with days to weeks after starting the medication.

Drug-induced Parkinsonism (DIP)

- Causes
 - DRBAs
 - Calcium channel blockers used to treat heart disease
 - Amiodarone
 - Chemotherapy
- Symptoms
 - Slow movements
 - Stiffness
 - Symmetric Tremors
 - Gait abnormalities
- Treatment
 - Stop the offending medication.

Other

- All conditions listed under acute may also be also occur in a subacute fashion.

CHRONIC DISORDERS

- Symptoms begin months to years after starting the medication.

Tardive Dyskinesia

- Late onset disorder three or more months after starting the medication
- Movement disorder must continue after stopping the offending medication in order for the diagnosis to be made.
- Causes
 - DRBAs

- Symptoms
 - Chewing
 - Grimacing
 - Lip smacking
 - Tongue movements
 - Wiggling, dance-like body movements
- Treatment
 - Early recognition and intervention
 - May be a lifelong disorder whether or not the offending medication is stopped.
 - In many cases the medication can not be stopped such as treatments for schizophrenia or bipolar disease.
 - Treatment with Austedo or Ingrezza