

Rare Side Effects of Antipsychotics

JESUNIFEMI BANIGBE, MS4
ROSS UNIVERSITY SCHOOL OF MEDICINE
MARJORIE CARO, M.D. PSYCHIATRY PRACTICE

What are Antipsychotics?

Antipsychotics are medications used to treat mental health disorders such as schizophrenia, bipolar disorder, and depression.

Types

1. Typical Antipsychotics
2. Atypical Antipsychotics



Typical Antipsychotics

Definition

These are also known as first-generation antipsychotics. They work mainly by blocking dopamine (D2) receptors in the brain.

Popular Example:

Haloperidol (Haldol)

Examples of Typical Antipsychotics

**HALOPERIDOL
(HALDOL)**

**CHLORPROMAZINE
(THORAZINE)**

FLUPHENAZINE

PERPHENAZINE

TRIFLUOPERAZINE

THIORIDAZINE

Atypical Antipsychotics

Definition

These are also known as second-generation antipsychotics. They block dopamine (D2) receptor, but also target serotonin receptors (5-HT_{2A}) and other receptors.

Popular Example:

Risperidone
(Risperdal)

Examples of Atypical Antipsychotics

**RISPERIDONE
(RISPERDAL)**

**ARIPIPRAZOLE
(ABILIFY)**

**OLANZAPINE
(ZYPREXA)**

**QUETIAPINE
(SEROQUEL)**

**CLOZAPINE
(CLOZARIL)**

**ZIPRASIDONE
(GEODON)**

COMMON SIDE EFFECTS OF ANTIPSYCHOTICS

SLEEP CHANGES

DRY MOUTH

WEIGHT GAIN

**SEXUAL SIDE
EFFECTS**

DROWSINESS

**INCREASED BLOOD
GLUCOSE &
CHOLESTEROL**

RARE SIDE EFFECTS

Antipsychotics can also cause side effects that are rarer and considered more dangerous. Hence, there is a need to use them as prescribed and to see your psychiatrist if you experience any of these rare side effects.

RARE SIDE EFFECTS OF ANTIPSYCHOTICS

**EXTRAPYRAMIDAL
SIDE EFFECTS (E.G.
RESTLESSNESS)**

SEIZURES

**NEUROLEPTIC
MALIGNANT
SYNDROME**

BLOOD DISORDERS

TARDIVE PSYCHOSIS

**CARDIOVASCULAR
PROBLEMS**

Extrapyramidal Side Effects (EPS)

Definition & Examples

These are movement disorders most commonly caused by typical antipsychotic medications due to their blockade activity on dopamine (D2) receptors.

They include:

1. **Acute dystonia:** sudden, involuntary muscle spasms that cause distorted positions. It affects the neck, jaw, eyes, and torso.
2. **Akathisia:** inner restlessness and ability to remain still.
3. **Parkinsonism:** produces symptoms identical to Parkinson's Disease including tremors, rigidity, and impaired gait.
4. **Tardive dyskinesia:** a late-onset syndrome that involves involuntary repetitive movements affecting the tongue, face, mouth, lips, jaw, trunk, and extremities (hands and feet).

Definition and Examples

A seizure is caused by uncontrolled electrical activity in the brain, leading to involuntary actions or movements of parts of the body.

Types

Seizures

Focal Onset	Generalized Onset
Begins in one side of the brain and may affect awareness, emotion, cognition, motor or sensory features, or behavior.	Begins in both sides of the brain and may manifest with motor or nonmotor symptoms. Examples include convulsions, jerking movements, and absence (staring spells)

Neuroleptic Malignant Syndrome (NMS)

Definition

NMS is a life-threatening syndrome characterized by the triad of:

1. Rigidity
2. Hyperthermia (high temperatures $>100.4^{\circ}\text{F}$)
3. Autonomic instability (or instability of the sympathetic nervous system)

Symptoms include: fast heart rate (tachycardia), high or low blood pressure, high temperature, and delirium.

Blood Disorders

Definition and Examples

The following blood disorders can be caused by antipsychotic use:

1. Neutropenia: decreased number of neutrophils (or 'fighter' white blood cells) in the blood.
2. Agranulocytosis: the most severe form of neutropenia (most commonly caused by Clozapine)
3. Thrombocytopenia: decreased number of platelets in the blood

CARDIOVASCULAR PROBLEMS

Definition and Examples

- Some antipsychotics may cause problems with the electrical activity of the heart, causing it to beat with an abnormal rhythm. This is known as an **arrhythmia**, and this can be life-threatening. An example of such a drug is Ziprasidone.
- In addition, Clozapine may cause **myocarditis and cardiomyopathy**.
- Therefore, it is important for patients with underlying heart disease using these drugs to let their psychiatrist and primary care provider know, so that necessary adjustments may be made, in order to avoid these risks.

Tardive Psychosis

Definition

This is a phenomenon that occurs later in the disease process due to prolonged use of antipsychotics, leading to supersensitivity of dopamine receptors in the brain.

This manifests as worsening psychosis that cannot otherwise be managed by increased doses of antipsychotics. Patients often present with abnormal involuntary movements alongside treatment-resistant psychotic symptoms.

IMPORTANT TAKE-HOME MESSAGE

Antipsychotics, like any other class of drugs, carry some significant side effects that could severely impair the quality of life of a patient, and in extreme cases, may be life-threatening.

Therefore, it is very important and highly recommended for patients to let their psychiatrists and primary care providers know of any side effects they may be experiencing with any medication, so that necessary adjustments can be made before it is too late.

YOUR SAFETY COMES FIRST!!!

