**Extrapyramidal symptoms (EPS)**

* Extrapyramidal symptoms (EPS) are a group of side effects that occur due to the use of certain medications, particularly antipsychotic drugs. These symptoms affect the motor system and can include involuntary movements, muscle stiffness, and tremors.
* Extrapyramidal side effects includes:

1. Acute dystonia,
2. Neuroleptic-induced parkinsonism,
3. Akathisia and
4. Tardive dyskinesia

* Every antipsychotic has its own possible side effects. Not everyone who takes antipsychotics will experience side effects, but many people do.

1. **Acute dystonia**

* Dystonia is movement disorder causes repetitive muscle contractions result in twisting and repetitive movements.
* Dystonia can involve the neck, jaw, tongue and the entire body
* **Involved in Neck called cervical dystonia:** Here Contractions cause head to twist and turn to one side, or pull forward or backward.
* **Involved in Eyelids called blepharospasms:** Rapid blinking or spasms occurs
* **Involved in Jaw or tongue called oromandibular dystonia:** here slurred speech, drooling, and difficulty chewing or swallowing occurs

1. **Neuroleptic-induced parkinsonism**

* Parkinsonism caused by antipsychotic (neuroleptic) medication is sometimes referred to as neuroleptic-induced parkinsonism.
* **Key clinical features include:**

Symptoms include rigidity, tremors, bradykinesia, stooped posture, drooling, akinesia and ataxia.

**Bradykinesia:** This is characterized by slowness of movement and difficulty initiating voluntary movements. Patients may have a decreased ability to perform activities requiring fine motor skills, such as buttoning clothes or writing.

**Muscle Rigidity:** Patients with Parkinsonism experience increased muscle tone or stiffness, which can lead to stiffness in the arms, legs, or neck. Rigidity often contributes to a feeling of "tightness" or discomfort.

**Resting Tremor:** A characteristic feature of Parkinsonism is a tremor that occurs primarily at rest, affecting hands, fingers, or limbs. The tremor typically diminishes with purposeful movement and may increase with stress or anxiety.

**Akinesia:** Akinesia refers to a loss or impairment of voluntary movement. It is characterized by a reduced ability to initiate or perform purposeful movements, which may appear as a partial or complete lack of movement in affected individuals.

**Ataxia:** Ataxia refers to a neurological condition characterized by impaired coordination of voluntary movements, affecting muscle control, balance, and gait.

1. **Akathisia**

* **Akathisia** is a movement disorder that makes it difficult to sit or remain still due to an inner restlessness.
* People with akathisia typically describe a feeling of restlessness with a strong, uncontrollable need to move. They describe nervousness and inability to relax.

**Key clinical features include:**

* **Restlessness:** Patients often describe a pervasive sense of restlessness or discomfort that compels them to move constantly. This sensation may be distressing and difficult to alleviate.
* **Motor Hyperactivity:** Individuals with akathisia exhibit observable motor hyperactivity, such as pacing, rocking back and forth, shifting weight from foot to foot, or crossing and uncrossing legs.
* **Inability to Sit Still:** There is an inability to remain seated or still for prolonged periods, often prompting frequent changes in posture or position.
* **Anxiety and Agitation:** Akathisia can be accompanied by feelings of anxiety, agitation, or a sense of impending doom, contributing to the overall distress experienced by the patient.
* **Behavioral Changes:** Some patients may demonstrate impulsive or agitated behaviors as a result of the discomfort caused by akathisia.
* **Sleep Disturbances:** Sleep may be disrupted due to the persistent restlessness, further exacerbating daytime symptoms and impacting overall quality of life.
* **Psychomotor Agitation:** In severe cases, akathisia can lead to psychomotor agitation, where the restlessness becomes uncontrollable and may result in potentially harmful behaviors.

1. **Tardive dyskinesia**

* **Tardive dyskinesia (TD)** are involuntary movements of the muscles of the face, mouth, and tongue.
* These are repetitive oral, facial, and tongue movements that can resemble grimacing, chewing, lip smacking, Blinking rapidly and Make repetitive finger movements

Here are the key clinical features of Tardive Dyskinesia:

**Involuntary Movements:**

* + **Facial Movements:** The most common feature of TD involves repetitive, involuntary movements of the facial muscles. This includes grimacing, lip smacking, puckering, and excessive blinking.
  + **Tongue Movements:** Patients often experience tongue protrusion, rolling, or thrusting, which can interfere with speech and swallowing.
  + **Jaw Movements:** Involuntary jaw movements, such as chewing motions or jaw clenching, are also common.

**Orofacial Dyskinesia:**

* These are the abnormal movements specifically affecting the mouth and face. They can be particularly noticeable and socially stigmatizing.

**Limb and Trunk Movements:**

* **Upper Limbs:** Movements may include repetitive hand clenching or writhing, finger movements, and arm waving.
* **Lower Limbs:** Some individuals may experience repetitive leg movements, such as toe tapping or foot stomping.
* **Trunk Movements:** Less commonly, TD can cause swaying, rocking, or twisting movements of the torso.